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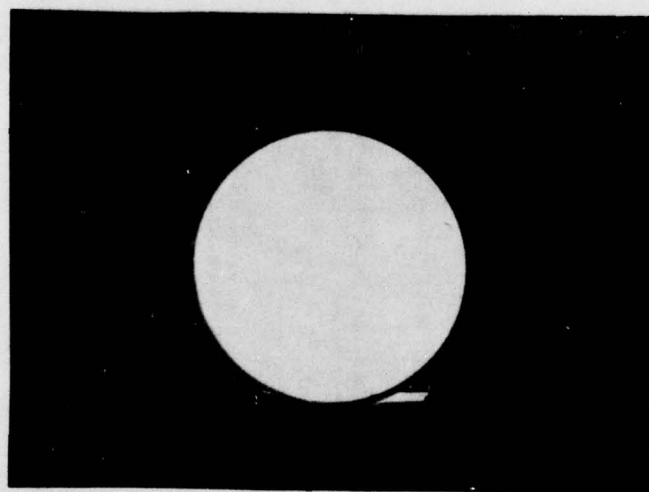
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CUMPACS STUDY REPORT



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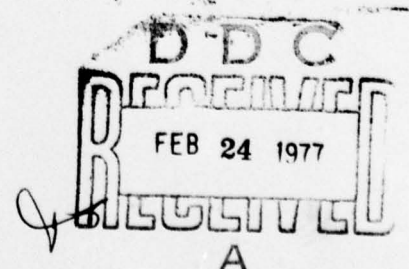
**for the
Base Operating
Information Systems**

BASOPS - COM

The Adjutant General Center

Department of the Army

1976



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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The purpose of COMPACS, a Category 6 (Management) study pursuant to AR 5-5 (The Army Study Program), was to conduct a program and systems development study for converting the Army's Base Operating Information System (BASOPS) to Computer Output Microfiche (COM). Through appropriate testing at four of the Army's 42 BASOPS installations and an analysis of data collected at all other BASOPS installations, the Study Group validated those outputs capable of being converted to microfiche. The		

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Group also determined the equipment required to satisfy user requirements; determined that the BASOPS-COM Microform Document Information System (MICRODIS) is cost-effective; and developed a plan for implementing a standard BASOPS-COM MICRODIS at all BASOPS installations.

The study found that COM was a desirable, feasible, and economical means of producing at least 80% of the BASOPS outputs. The Group also developed appropriate standards, implementation plans, and extension schedules for converting all BASOPS installations to COM. The first extension is scheduled to be the formal conversion of the four test sites in April 1977.

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COMPACS REPORT

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----- EXECUTIVE SUMMARY -----

COMPUTER OUTPUT MICROFORMS PROGRAM AND CONCEPT STUDY (COMPACS) REPORT

-- PROBLEM. Paper is costly and costs are rising with inflation. Computer printout paper, in its special fan-fold, interleaved-carbon form, is particularly expensive.

- o Paper ADP output is also disadvantageous due to size, volume, distribution, mailing, and retrieval.

- o The BASOPS-COM subsystems of SAILS, STANFINS, and SIDPERS are major users of ADP printout paper at the 42 BASOPS posts in CONUS, Alaska, Panama, and Hawaii.

- o Microforms offer a feasible alternative, if demonstrably cheaper and acceptable to BASOPS report users.

-- BACKGROUND.

- o Several separate, uncoordinated trial conversions of BASOPS output to computer output microform (COM) have taken place since 1972. Promise was apparent, as was need for testing and a standard system.

- o TAGCEN formed the HQDA Micrographics Management Branch in 1973. TRADOC, in Mar 74, submitted its proposal for an integrated study of BASOPS-COM to develop a standard system.

- o After restructuring the TRADOC study plan and obtaining funds, TAGCEN obtained CSA approval and initiated COMPACS effort in Feb 75.

- + TAG was study sponsor; OCSA study monitor was Management Information Systems Directorate (MISD). Study Advisory Group was chaired by TAG, with membership from MISD and the three HQDA proponents of BASOPS subsystems: OCA (STANFINS), ODCSLOG (SAILS), and MILPERCEN (SIDPERS).

- + Provisions were announced for BASOPS posts, desirous and capable of doing so, to make interim local conversions to BASOPS-COM while study progressed.

- + Microfiche, using 48X reduction ratio and National Micrographics Association standards, was considered most desirable of formats available.

o There are currently 568 separate BASOPS reports (273-SAILS, 158-STANFINS, 137-SIDPERS), produced with varying frequencies (from daily to yearly or as required), and principally on 11 x 14 computer printout paper with interleaved carbon. Total estimated annual BASOPS computer paper and reproduction costs alone were at least four million dollars.

-- EXECUTION. The COMPACS Group executed a systems development study including field tests, data collection, cost-benefit analysis, and final system design.

o The five study phases were:

Phase I -- COMPACS Group preparation; planning completion.

Phase II -- initial data collection at test sites, development of microfiche production and user equipment specifications, preparation for tests.

Phase III -- data collection at all other BASOPS installations, conduct of 13-week tests at four test sites, and determination of funding and procurement requirements.

Phase IV -- evaluation of test results, design of COM system, and documentation of optimum system for each post.

Phase V -- preparation and staffing of final report and proposal; development of implementation plan and schedule.

o The four designated test sites were Fort Lewis and Fort Sam Houston (where commercial service bureaus were available under contract for COM production), and Fort Huachuca and Fort Carson (where in-house Army COM production were utilized).

o TAGCEN funded all FY 76-77 COMPACS study costs, including purchase/lease of test site equipment, services, and supplies, as well as costs of continued COM production at test sites beyond test completion.

o Since the 42 BASOPS posts involve installations of TRADOC, FORSCOM, HSC, USACC, and MDW, a COMPACS coordinator was designated by each MACOM HQ and a point of contact for each installation named, for participation as appropriate.

o Detailed descriptions of actions taken during each study phase are contained in Sections IV through VIII of the study report.

-- SUMMARY OF ACTIONS/RESULTS.

- o Successful tests were conducted at the four test sites during a 13-week period in July - October 1975.

- + Tests conclusively demonstrated feasibility of both in-house and service contract COM production.

- + Nearly 80% (453) of the 568 BASOPS reports were shown to be useable in microfiche produced by COM in lieu of paper.

- + Users, supervisors, and managers found fiche to be useable and acceptable; many indicated a desire for additional reports on fiche.

- o Extensive data was collected among test sites, and from the other BASOPS installations, for use in the cost-benefit analysis and other study purposes.

- o Utilizing COMPACS specifications based upon test site software development, standard software will be developed and prototyped by CSC. Standard software is required for BASOPS-COM reports selection and stacking (placing more than one report on a single or sequential group of microfiche). Standardized titling and indexing of microfiche are also required.

- o The cost-benefit analysis format was concurred in by OCA, and its methodology found by USAAA to be reasonably accurate and sufficient to support economic decisions regarding BASOPS-COM extension.

- o Production of BASOPS reports in COM under the COMPACS standard system is cost effective. When fully implemented, BASOPS-COM will result in net savings of \$700,000 per year, beginning in FY 1979.

- + Per ODCSLOG, implementation of BASOPS-COM will not constitute any "new start" under AR 235-5.

- + Centralized funding for BASOPS-COM implementation, procurement, and operation during FYs 1977 and 1978 (\$1.93 million and \$1.63 million, respectively, for total of \$3.56 million) will be provided by TAGCEN. Continued production costs for FY 1979 and beyond will be programmed and funded by MACOMS and installations affected.

- o Procurement will be accomplished via General Services Administration (GSA), since the maximum order limit will be exceeded. GSA has reviewed BASOPS-COM procurement specifications developed by COMPACS and reported their adequacy.

o Proposed implementation and extension schedules have been developed, calling for the conversion of all BASOPS sites to the BASOPS-COM system during Apr 77 - Jun 78. Extension will be accomplished by TAGCEN, with appropriate participation by subsystem proponents, MACOMS, and installations.

-- FINDINGS AND RECOMMENDATIONS.

o Findings and conclusions are contained in Section IX.

o Recommendations:

+ COM be formally extended to all BASOPS installations in accordance with the standards and schedules contained herein.

+ The titling and indexing formats, COM software, and equipment specifications contained herein be approved as BASOPS-COM standards.

+ The BASOPS-COM procurement specifications be forwarded to the General Services Administration upon completion of a successful prototype.



DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL AND THE ADJUTANT GENERAL CENTER
WASHINGTON, D.C. 20314

DAAG-A12-C

1 September 1976

SUBJECT: Computer Output Microforms Program and Concept
Study (COMPACS) Report

SECTION I - PROBLEM

The inflationary costs and periodic shortages of paper, and the inherent limitations of high-speed impact printers in a computer configuration, evidenced a need to convert computer generated hard-copy information to microform. In addition to the cited factors, the disadvantages associated with the physical size, volume, space requirements, distribution schemes, and the varied retrieval systems characteristic of hard-copy paper output clearly demonstrated the necessity of devising a solution to solve these problems at installations using the Base Operating Information System (BASOPS).



SECTION II - BACKGROUND

1. GENERAL.

a. In recent years, various installations, major commands (MACOM), and Headquarters, Department of the Army (HQDA) staff agencies expressed an interest in converting selected hard-copy products under their purview to microfiche. Notably, in 1972, Fort Sam Houston began converting selected BASOPS reports to a microformat based upon a feasibility study conducted there. In 1973, Headquarters, Training and Doctrine Command (TRADOC) commenced testing the conversion of BASOPS output to microforms at Fort Eustis. Among HQDA staff agencies, the Office of the Deputy Chief of Staff for Logistics (ODCSLOG) took the lead in late 1973, by conducting a study to determine the feasibility of placing the logistics portion of BASOPS -- SAILS (Standard Army Intermediate Level Supply System) -- on microform.

b. During November 1973, TRADOC proposed to the Office of the Director, Management Information Systems (DMIS), HQDA, the rapid proliferation of computer output microfilm (COM) to its BASOPS installations. DMIS, in coordination with The Adjutant General (TAG), directed TRADOC to terminate its unilateral action, submit its proposal to TAG under AR 340-22 (The Army Microforms Program), and take into consideration the personnel, finance, and logistics outputs of BASOPS, as well as the other MACOMs involved. TRADOC was also designated as the executive agent.

c. The first quarter of 1974 saw increased interest in COM, and included an indication by USA Computer Systems Command that three separate and uncoordinated actions were in progress to convert BASOPS STANFINS (Standard Army Finance Systems) output to microform. Almost simultaneously, ODCSLOG proposed the conversion of selected BASOPS logistical reports to microfiche at the Presidio of San Francisco.

d. In March 1974, TRADOC submitted a MICRODIS (Microform Document and Information System) proposal to TAG, which essentially indicated an intention to proceed as previously outlined in their proposal submitted in November 1973. However, in the latter proposal, TRADOC recommended the conduct of a feasibility study, after contractor services for use of COM by BASOPS had been procured and an interim BASOPS MICRODIS had been placed into effect. An evaluation of the TRADOC proposal revealed that it presented little data that could be validated, lacked the requisite degree of specifics, and did not contain a cost benefit analysis as stipulated in AR 340-22. At the same time, the National Archives and Records Service (NARS) indicated

that TRADOC had contacted NARS with respect to obtaining technical support in developing a feasibility study and a system proposal.

e. HQDA recognized that the varied and numerous efforts lacked an integrated nature, that the several studies addressed only the conversion of selected reports, and that uncoordinated and independent developmental efforts resulted. Accordingly, TRADOC was directed to develop a system for the conversion of the total BASOPS output - to include the Standard Installation/Division Personnel System (SIDPERS), SAILS, and STANFINS - and command uniques, as well as the requirements of Forces Command (FORSCOM) and Health Services Command (HSC). The tasking placed upon TRADOC called for the preparation and submission of a proposed management project directive to insure the development of an effective, multi-functional and multi-command MICRODIS. The proposed directive submitted by TRADOC indicated a sound and comprehensive approach to developing a BASOPS-COM MICRODIS. A review of the proposal indicated, however, that although it included a provision for interim microform systems, more than two years would elapse before the final results of the project could be implemented as a standard BASOPS microform system. Additionally, the proposal would have required the Army Staff to contribute all personnel and funds required for the project task force, while the MACOMs - which are, in point of fact, the users - would provide none. To alleviate the then current paper shortage and the extreme paper costs facing BASOPS installations, to accelerate the implementation of standard microform systems, and to reduce the personnel and funding impact, the TRADOC proposal was modified. The Chief of Staff was requested to approve the TRADOC proposal with modifications which would:

(1) Provide for interim microform systems so costs savings could be generated and computer paper problems could be relieved at the earliest possible date.

(2) Reduce the time frame from twenty-seven (27) to thirteen (13) months through the modification of some tasks and the elimination of others.

(3) Designate sites where prototype systems could be installed with minimum delay. The sites were Fort Lewis and Fort Sam Houston, at which some BASOPS output was produced in COM under existing service bureau contracts, and Fort Huachuca, where an existing microform service center could be adapted easily to in-house COM testing.

(4) Minimize personnel resources by tasking certain agencies and commands to perform certain functions. The Army Staff would be tasked

to provide six full-time members and the MACOMs two full-time members; the General Services Administration/NARS would be requested to provide two members.

(5) Require the MACOMs having test sites to furnish FY 75 funds for the prototype tests, some of which would be offset by virtue of the fact that several of the proposed test sites had equipment on hand. TAG would provide funds for other administrative support, the GSA personnel, and TDY costs for members comprising the team during FY 75. For FY 76, TAG had included \$270,000 in its budget estimate to support the project.

f. It was deemed undesirable to permit proliferation of BASOPS-COM without a detailed study. Recognizing that such action would foster non-standard microform systems; provide little, if any, assurance of cost-effectiveness; and be detrimental to the Army's long range program of microforms management, the Chief of Staff approved the TRADOC proposal with the aforementioned modifications on 6 December 1974. This action culminated in the issuance of CSM 74-340-108, dated 6 December 1974, subject: "Computer Output Microforms Program and Concept Study (COMPACS)," attached with amendments at Annex A, and HQDA Letter 340-74-7, of the same date and subject, attached with amendments at Annex B, which established the HQDA Study Group.

2. PURPOSE. The purpose of COMPACS, a Category 6 (Management) study pursuant to AR 5-5 (The Army Study Program), was to conduct a program and systems development study for converting BASOPS computer outputs to COM at Army installations.

3. SCOPE. The scope of COMPACS included all installations of TRADOC, Forces Command (FORSCOM), Health Services Command (HSC), USA Military District of Washington (MDW), and USA Communications Command (USACC); considered the requirements of the existing functional proponent Army Staff agencies and the requirements of other Army Staff agencies with a functional interest in the COMPACS endeavors; considered all user requirements for reports handling, storage, retrieval, and display; and evaluated all equipment necessary to implement the BASOPS-COM MICRODIS.

4. OBJECTIVES. The objectives of COMPACS were threefold in nature: to provide early relief to the previously cited difficulties through the implementation of an interim BASOPS-COM MICRODIS; to implement a BASOPS-COM MICRODIS at three installations on a prototype basis; and, through this prototype test, to validate those ADPE outputs capable

of being converted to microform, determine the equipment required to satisfy user requirements, determine the cost/benefits of a BASOPS-COM MICRODIS, and develop a plan for implementing a standard BASOPS-COM MICRODIS at all BASOPS installations.

5. ASSUMPTIONS. The following assumptions were made with respect to COMPACS:

- a. Paper costs will continue to increase; shortages will occur.
- b. Requirements to produce BASOPS-type reports, using computers, will continue through the next decade.
- c. Costs of filing, storage, and retrieval will not decrease.
- d. COM is a more economical method of producing and handling large volume, ADP-generated information.
- e. The number of reports generated will not significantly decrease.
- f. All BASOPS systems design will continue to be predicated on a core limitation of 128K.

6. LIMITATIONS. The following limitations listed below were considered:

- a. This program and systems development study will be limited to the consideration of standard BASOPS computer-generated reports (e.g., SIDPERS, STANFINS, SAILS). Computer-generated reports identified as potential micropublishing applications will be noted and included in the final report.
- b. No attempt will be made to analyze the reports as to their composition and necessity, or the computer systems which generate them.
- c. No attempt will be made to revise the Army Functional Files System (TAFFS) requirements for retention and disposal of the reports under consideration.
- d. Unless a demonstrable need can be shown, the project will be limited to investigating currently available equipment and services.

e. The reduction ratio of primary consideration will be 48X for all microforms. Should the need for a lesser reduction ratio be ascertained through operational experience, consideration will be given to the alternate reduction ratio of 24X.

f. Where feasible, microformats will be designed in accordance with DOD/National Micrographics Association (NMA) standards and guidelines.

g. Microfiche will be used in preference to other microforms unless otherwise determined through operational testing.

SECTION III - EXECUTION

1. **METHODOLOGY.** The methodology used by COMPACS consisted of the conduct of a systems development study in five phases, over a fifty-seven (57) week period, each of which is synopsized as follows:

a. **Phase I:** Consisted primarily of organizational management activity. Inherent in this activity was the formation of the Group, its orientation, a review of pertinent information bearing on the conduct of the Study, and the finalization of administrative and logistical arrangements.

b. **Phase II:** Consisted of interim proliferation (accomplished under the purview of the Administrative Systems Division of TAGCEN); development of data collection sheets, conduct of initial data collection at the test sites, design of an automated data collection plan, development of specifications for microform equipment for both production and user personnel, preparation of test sites and orientation of test site personnel, and the development of the test directive.

c. **Phase III:** Consisted of the development of evaluation sheets and automatic data processing programs for use in the test, conduct of data collection effort at installations other than test sites, conduct of a thirteen (13) week test at the prototype sites, and the determination of funding and procurement requirements.

d. **Phase IV:** Consisted of an evaluation of the test results, the determination and design of the COM system for each BASOPS installation, and the preparation of the documentation of the optimum system at each installation.

e. **Phase V:** Consisted of preparation of the MICRODIS proposal, manpower requirements, contingency plan, and implementation plan and schedule for each installation; staffing the proposal with MACOMs and DA proponents; and submission of the proposal pursuant to AR 340-22.

2. **STUDY GROUP MEMBERSHIP.** The Study was to commence on 6 December 1974, the date of COMPACS' chartering document. However, difficulties encountered in staffing the COMPACS Group caused the effective start date for the Group to be established as 3 February 1975 - the date on which 50% of prescribed staffing was attained. The composition of the COMPACS Group was as follows. to include the reporting date of each individual and departure date, as appropriate.

a. Colonel Charles T. Search; Project Manager from TAGCEN; reported 6 January 1975; departed (retirement) on 31 July 1976.

b. Captain D. Sherrill Clements; Deputy Project Manager from TAGCEN; reported 6 January 1975, and departed for a new duty assignment on 28 April 1976.

c. Mr. Karl Bielenberg, GS-13 Management Analyst; recruited by TAGCEN from an element thereof; charged against HQ TRADOC position; reported 3 February 1975.

d. Mr. James R. Miles, GS-13 Computer Systems Analyst; recruited by TAGCEN from MILPERCEN, charged against HQ FORSCOM position, reported 10 February 1975; departed for a position in another agency on 23 July 1976.

e. Mrs. Yvonne Starbuck, GS-13 Management Analyst; on loan from GSA/NARS, pursuant to contractual agreement between TAGCEN and GSA/NARS; reported 6 January 1975 and departed upon termination of contract on 15 December 1975.

f. Mr. Herbert H. White, GS-13 Computer Specialist; detailed full-time from HQ, Computer Systems Command; reported 10 February 1975, and departed upon completion of detail on 12 March 1976.

g. Mr. Curtis R. Condit, GS-12 Logistics Management Analyst; detailed full-time from ODCSLOG, HQDA; reported 10 February 1975 and departed on 9 January 1976 upon his retirement from Civil Service.

h. Mr. Donald A. Kennedy, GS-12 Computer Systems Analyst; detailed full-time from the Administrative Systems Division, TAGCEN; reported 6 January 1975.

i. Mr. Edward R. White, GS-12 Management Analyst; recruited by TAGCEN from HQ, USA MDW; reported 2 June 1975 and departed on reassignment for promotion on 14 May 1976.

j. Mrs. Connie Coates, GS-6 Secretary; recruited by TAGCEN from an element thereof; reported 10 March 1975. Departed on reassignment 18 June 1976.

SECTION IV - PHASE I ACTIONS

1. GENERAL. As indicated in the COMPACS Status Report 1, attached at Annex C, the administrative and logistical arrangements for the Group were, in the large measure, completed; the listings of the MACOM Coordinators and Points of Contact (POC) at BASOPS installations were developed; and the composition of the Study Advisory Group (SAG) was designated.

2. OBJECTIVES FOR DATA COLLECTION. The objectives of the data collection effort, as shown at inclosure 5 to Annex C, were determined to be:

- a. Validate the feasibility of using COM for various reports.
- b. Determine the equipment needed to satisfy user requirements.
- c. Contribute to the determination of costs and savings associated with conversion to a COM system.
- d. Assist in the development of an implementation plan for MICRODIS at BASOPS installations.

3. DATA COLLECTION SHEETS. Based upon the foregoing objectives, action was taken to develop, design, and publish Data Collection Sheets (Part I - for use by the Data Processing Installation (DPI), and Part II - for completion by users) to obtain information on the production and usage of reports produced in hard copy paper at the prototype test sites. An integral part of the activity concerned with the development and design of the Data Collection Sheets, involved extensive coordination with representatives of the USA Management Systems Support Agency (USAMSSA) to insure that the information obtained from the DPIs and the users would be capable of being captured automatically so that, subsequently, appropriate profiles could be developed. Copies of Parts I and II of the Data Collection Sheets are attached as inclosures 6 and 7 to Annex C.

4. TEST PRODUCTION EQUIPMENT. The "Equipment Specification Guidelines for COM Recorders," attached as inclosure 8 to Annex C, were prepared to assist the Coordinator and POC at Fort Huachuca, the designated "in-house test site," in the development of specifications to obtain required equipment for the test. Simultaneously, pertinent information concerning the existing contracts, in effect at Forts Sam Houston and Lewis, the designated "service bureau test sites," were obtained and reviewed.

5. DETAILED LIST OF EVENTS. The Summary Events Chart, detailed Program Evaluation and Review Technique (PERT) Chart, and the Milestone Chart, provided with the basic directives, were thoroughly reviewed and, where applicable, modifications to each initiated. Copies of the PERT Chart and Milestone Schedule are attached at Annex D.

6. PHASE ADJUSTMENT. Certain aspects of COMPACS originally scheduled to be accomplished in Phase II were, in fact, accomplished in Phase I. The primary reason for this was the change in the effective start date of COMPACS, which was caused by the initial difficulties encountered in staffing the Group.

SECTION V - PHASE II ACTIONS

1. GENERAL. During this phase of its endeavor, the COMPACS Group expended its effort in evaluating COM equipment and vendor ability to furnish both production and user equipment to the in-house site (and user equipment for the service bureau sites) in time for the test, preparing the test site for installation/receipt of the equipment, developing orientations for the test site personnel, and actual development of the formalized test plan. A considerable portion of the foregoing was initially accomplished telephonically and via correspondence due to limitations on use of travel funds.

2. VENDOR CONTACTS. In an effort to evaluate COM equipment and determine vendor capability to deliver both production and user equipment to the respective test sites, major manufacturers and vendors were contacted. Such invariably resulted in extensive visits by representatives of these corporations to COMPACS' Office to discuss the nature, scope, status, and impact of the Study. During these informal presentations and discussions, members of the COMPACS Group continually sought to obtain information concerning not only the vendors' capability to deliver equipment and conduct a subjective evaluation of the equipment, but also to obtain information concerning the vendors' maintenance capabilities, availability of back-up equipment, customer-engineer support, training programs, costs in both lease and purchase situations, and software capability. Working files were established as a result of the foregoing and all vendors were requested to provide COMPACS with information, on a continuing basis, concerning modifications to existing equipment and data about new and improved COM production and user equipment entering the inventory. Through such means, the COMPACS Group sought to remain apprised of the latest developments in the state of the art. Coupled with the foregoing, representatives of the Group visited numerous vendor offices, governmental agencies, and financial institutions in an effort to observe various items of production and user equipment in operation in order to objectively evaluate the equipment.

3. BASOPS REPORTS INVENTORY. As a preparatory action to the development of the test plan, representatives of COMPACS sought to determine the existing reports within each of the sub-systems comprising BASOPS (i.e., SAILS, SIDPERS, and STANFINS) by seeking to obtain the information from the proponents of each (i.e., ODCSLOG, ODCSPER/MILPERCEN, and OCA, respectively), the Computer Systems Command, the HQDA Reports Control Office, MACOMs, and the test sites themselves. None of the foregoing had an inventory of the reports. Accordingly, since such was deemed an essential requirement for the total thrust of COMPACS, three

members of the Group expended considerable effort and time in developing the listing of reports within the BASOPS system. To develop an inventory of the reports within BASOPS, it was necessary to go through the users' manuals of each subsystem and identify each individual product. In performing this time-consuming task, it was determined that several different reports had the same Product Control Number (PCN); therefore, to identify such reports as an individual report, the COMPACS Group added an alpha character as a suffix. As a result, the Group identified a total of 571 reports in the BASOPS sub-systems consisting of 273 in SAILS, 137 in SIDPERS, and 161 in STANFINS as of the latest change package for each system at the time of the action.

4. TEST SITE VISITS. During early March, the existing restrictions against the use of travel funds was removed, which, therefore, enabled members of the COMPACS Group to travel to the respective test sites. Thus, during the period 24 - 28 March 1975, representatives of COMPACS visited the test sites and established contact with appropriate Coordinators/POCs; conducted briefings on the overall thrust of the COMPACS endeavor, the purpose of the data collection effort, and method to be followed in completing data collection forms; and visited certain user locations at sites and the equipment (COM recorder, processor, and duplicator) location site at Fort Huachuca.

5. FORT HUACHUCA. At the time of the Group's visit to Fort Huachuca, the evaluation of production equipment from available vendors had been completed in accordance with the guidelines and selection criteria provided by COMPACS.

a. The criteria prescribed that:

(1) All equipment be available from qualified vendors and on the GSA schedule prior to selection.

(2) The mini-reformatter provide, through a single pass, the necessary core and software for reformatting, titling, and indexing of BASOPS report to be put on microfiche.

(3) The selected vendor be capable of providing sufficient lead time for equipment acceptance by the COMPACS Group.

(4) The vendor assure adequate on-call maintenance capability and responsiveness within the geographical area serviced.

(5) The vendor provide software and "hands-on" training prior to the start of the actual test.

(6) Sole-source contracting be authorized, based upon current GSA equipment selection guidelines.

(7) Recommendation for equipment selection be substantiated by documentary evidence that all available vendors were solicited.

b. Based on the foregoing, the appropriate personnel at Fort Huachuca recommended and the COMPACS Group concurred in action to award the contract for the in-house test production equipment to Stromberg DatagraphiX. Subsequent to that decision, the COMPACS members and the USACC (Fort Huachuca) Coordinator met with the West Coast representative of DatagraphiX to discuss further and confirm such matters as availability and installation of equipment, maintenance and servicing arrangements, training of concerned individuals, and related matters.

6. SAILS TEST INADEQUACY. During its stay at Forts Lewis and Huachuca, the Group learned that SAILS, while originally scheduled for implementation in time for the test, was not in operation at these installations and that, due to slippage, would not be operational at these prototype sites until well after the test. This was considered an inhibition in that, after discussion with ODCSLOG, it was determined a SAILS test at only Fort Sam Houston would not be representative. Accordingly, the implications thereof were recognized as a matter for discussion at the forthcoming Study Advisory Group (SAG) meeting.

7. COMPACS SAG MEETING. The first COMPACS Study Advisory Group (SAG) meeting was held on 10 April 1975, the complete report of which is on file in the COMPACS office. The meeting, chaired by TAG, was convened for the purpose of presenting to the SAG COMPACS' planned approach for accomplishing its objectives, to review the Study Group's progress to date, and to provide the SAG an opportunity to present or offer guidance to the COMPACS Group. The SAG evidenced satisfaction with the progress attained by the Group and sanctioned workshop sessions to train POCs in the collection of data at BASOPS installations other than those participating in the test. Additionally, the SAG directed the COMPACS Group to initiate action which would overcome the difficulty resulting from testing SAILS at an installation that would not be truly representative of the standard supply system environment.

SECTION VI - PHASE III ACTIONS

1. GENERAL. During this phase of the study, the Group concentrated its activity in four specific areas, as detailed in the milestone schedule, and as prescribed by the SAG. These areas were: gearing up, or preparing an additional BASOPS installation, as a prototype test site; taking action associated with the selection of peripheral equipment - such as readers, reader-printers, and supplies - for the test sites; supervising the data collection effort on existing BASOPS reports at the test sites; initiating actions concerned with the actual test plan to include the development, coordination, and preparation of the various questionnaires to be used during the test; and conducting three one-day workshop sessions on the data collection effort, for representatives from BASOPS installations other than those participating in the test.

2. ADDED TEST SITE. In pursuing the SAG's guidance to overcome the difficulty in testing SAILS at only Fort Sam Houston, the COMPACS Group explored the feasibility of adding another test site at which SAILS, as well as SIDPERS and STANFINS, could be more representatively tested; considered substituting such an installation for one of the designated test sites; and evaluated other possible avenues to insure that the tests would be representative and thereby attain a greater degree of validity. Of these alternatives, the COMPACS Group opted for the addition of a fourth test site. The elimination of an existing test site was considered highly undesirable. Factors for retention included the on-going data collection effort, the possible impairment of existing service capability, and the "let-down" which would result among test site personnel strongly motivated toward the adoption of COM.

a. After arriving at the decision to add a fourth site, the Group reviewed the listing of FORSCOM installations and determined that Forts Bragg, Carson, and Hood had extensive experience in SAILS and had divisional size units. As indicated in the matrix at inclosure 1 to Annex E, of the three installations, Fort Bragg was the least desirable, while both Forts Hood and Carson compared favorably. With respect to Fort Hood, in addition to being inundated with past, on-going, and programmed tests, it has a pending request for interim COM, which, when approved, would bring another installation "on-line." Thus, plus burdening Fort Hood with another test, its selection would have resulted in one less installation going to COM and not maximized the monetary savings associated with COM at an early date. Since ODCSLOG, the proponent of SAILS, preferred Fort Carson and it had extensive experience with logistical systems, its selection as a test site proved sound.

b. Inherent in the SAG's tasking was the implied mission of determining the mode of COM to be adopted at an additional or substituted installation. These modes consisted of a COM service bureau, an in-house capability using a mini frontend computer (reformatter), and an in-house capability without reformatter. At Forts Sam Houston and Lewis, existing COM service bureau contracts were applied as the test mode. At Fort Huachuca an in-house capability using a reformatter was employed as the test mode. Since all modes except an in-house capability without a mini frontend computer had been employed, adaption of this mode was logical to insure that each was employed.

c. Based on the foregoing, the COMPACS Group recommended and the members of the SAG, as well as HQ, FORSCOM, concurred in the designation of Fort Carson as an additional prototype test site for BASOPS-COM, utilizing an in-house capability without a reformatter, on 25 April 1975. Accordingly, action was initiated to amend the chartering CSM and other appropriate directives pertaining to COMPACS.

3. FORT CARSON VISIT.

a. Members of the COMPACS Group visited Fort Carson from 5 through 8 May to establish contact with the POC; conduct briefings on the overall thrust of COMPACS' endeavor, introduction to COM, objectives of the data collection effort, and completion of Data Collection Sheets; and to assist in the selection of equipment for the test as well as to assess vendor capabilities to furnish local support. The latter included extensive discussions with vendors (in person and telephonically) to include NCR, Bell and Howell, Datagraphix, Xidex, Scott-Graphics, Eastman Kodak, Calcomp, and Quantor regarding availability of equipment, maintenance, supplies, and rental costs, and a review of proposals submitted by several of the aforementioned vendors. The Group also worked with Fort Carson functional proponents to resolve certain issues associated with BASOPS reports listings, visited the site of the COMPACS workshop session to be conducted on 19 May, and visited the proposed site for the COM equipment. The group reviewed the considerable efforts by Fort Carson MISO personnel concerning the COBOL Program developed and tested by them with respect to resolving the "Floating PCN" in SAILS. This uniqueness in the SAILS system will be addressed later in this report.

b. Based upon the same set of criteria applied to the selection of production equipment for Fort Huachuca, the COMPACS Group analyzed and evaluated the proposals submitted by interested vendors. As a

result of its action, taken in conjunction with MISO personnel at Fort Carson, an NCR recorder/processor and a Datagraphix duplicator were selected as the production equipment pursuant to the matrix attached at Annex F.

4. PERIPHERAL EQUIPMENT SELECTION.

a. The criteria for peripheral microform equipment selection was proposed by the COMPACS Group and forwarded to the three original test sites prior to the first SAG meeting and was delivered to the fourth test site during the visit by the Group's members. One of the requirements established by COMPACS was that a variety of readers be obtained. This was based on the need to determine user acceptance and to check on the quality, availability, and each vendor's capability for maintenance. Accordingly, approximately twenty different models of readers were acquired for the test sites at an average cost of \$211 per reader. COMPACS personnel encouraged the points of contact to mix the readers so that users in a particular environment would have the opportunity of using several models, and thus be able to render a more valid appraisal of the equipment.

b. With respect to reader-printers, the COMPACS Group emphasized the necessity to minimize their procurement so as to avoid the proliferation of paper copies, the use of which could adversely affect the validity of the test. Accordingly, each test site requested and COMPACS approved the acquisition of not more than five reader-printers for any one test site. The placement of the reader-printers within each test site's environment was almost identical in that one was placed within the functional area of each sub-system. In those instances wherein more than three reader-printers were acquired, the additional one or two tended to be located in a distant sub-location of a particular sub-system or was provided to a major satellite activity. Both FORSCOM and USACC had "ear-marked" or set aside funds to pay for all equipment and services required for FY 75; therefore, the readers and certain miscellaneous items - such as densitometers - and services were purchased with funds available from the MACOMs. As directed in the COMPACS project directive, TAGCEN provided the requisite funds to support the COMPACS effort during FY 76.

5. TEST SITE DATA COLLECTION.

a. As reported during the initial SAG meeting, the Data Collection Sheets (DCS) had been designed, approved, and distributed to the initial

test sites. As a result of a review of the DCS by the POCs and Coordinators, slight modifications were made to them prior to their distribution to the additional test site. The DCS were used to obtain detailed information on both the production and use of the various BASOPS reports in hard copy paper, in addition to obtaining data pertinent to their distribution (i.e., within the functional environment) throughout the installation, forwarding to higher headquarters and/or to supported or satellited organizations located off the installation, etc. The data obtained was subsequently analyzed by the COMPACS Group for the purpose of accomplishing the objectives of the Data Collection effort discussed in Section IV, paragraph 2.

b. To attain the desired objectives of the Data Collection effort, the COMPACS Group requested that USAMSSA provide the required ADP resources to design a data base and the supporting software to accept the input, provide for it to be edited, and its subsequent update. Additionally, the Group simultaneously requested USAMSSA to provide the software capability required to determine BASOPS report profiles. The profiles desired would be determined by the COMPACS Group and be subsequently used to assist in determining the BASOPS reports which would be selected for testing. Through concerted and dedicated effort on the part of USAMSSA, the data base and supporting software was designed and available for use as of the first SAG meeting.

c. The data collected at the test sites was edited, and data profiles, based upon requirements and limitations established by the COMPACS Group, were developed. The profile inquiries that were designed included the size or length of a particular report; a report's distribution; users of a report; and the number of reproductions made of a report within the data processing installation and by users of the particular report. These profiles - in coordination with input received from the HQDA proponents and, highly important, the recommendations received from the functional managers of the sub-systems at the test sites - were used to identify candidate reports to be tested. After analyzing input from the indicated sources, COMPACS selected specific reports from each sub-system for evaluation at those sites at which the sub-systems would be operational during the test. COMPACS sought to select reports for testing from those which could be evaluated at at least two and preferably more than two test sites, to provide a basis for comparative analysis. As a result, the COMPACS Group programmed specific reports for testing at each of the various test sites; and encouraged the test sites to include command and local unique reports, and to increase the basic number of BASOPS reports placed upon microfiche.

6. TEST PLAN.

a. The COMPACS Microfiche Media Test Plan, attached at Annex G, was coordinated with command coordinators and the test site POC by on-site members of the COMPACS Group before finalization, and a copy of the proposed plan was provided to the SAG members for their review as part of the second COMPACS Status Report. The final test plan was distributed to the test sites on 20 June and contained the following objectives:

- (1) To validate the feasibility of producing selected BASOPS outputs on microfiche,
- (2) To determine standard microforms system configurations needed to satisfy BASOPS installation requirements, and
- (3) To identify cost factors for a cost/benefit analysis of the BASOPS-COM system.

b. To meet the stated objectives, the test plan called for the production, distribution, and use of the selected BASOPS reports in microfiche at the four prototype test locations over a thirteen (13) week period. Each test site was encouraged to produce BASOPS reports other than those specifically designated in the test plan and command and local uniques on microfiche during the test.

c. The plan also prescribed documentation of all output produced, resources used, and problems encountered during the test. It also included evaluation questionnaires which had been designed, developed, and produced collectively by COMPACS, USAMSSA, and TAGCEN's Systems Development Directorate, as follows:

- (1) The User Evaluation Questionnaire was to be completed by each user of each report. It contained inquiries concerning the acceptability of microfiche from the user's point of view, the effect of the microfiche media on job performance, sought to obtain the user's reaction to such features as indexing and titling, etc.

- (2) The Supervisor Evaluation Questionnaire was to be completed by the supervisors of individuals who used microfiche. It addressed from a managerial or supervisory aspect such items as changes in the work routine of personnel and morale brought about through the use of microfiche.

- (3) An Equipment Evaluation Questionnaire was to be completed by personnel who used the readers, and it had the purpose of eliciting

from such individuals their reaction to the various readers and the features of a particular reader to include its size, brightness of image, ease of focus, maintenance requirements, and similar factors.

d. Copies of these questionnaires are located at inclosures 6, 7, and 8, respectively, of Annex G. The test plan called for the evaluation of the reports in the microfiche mode and of readers to be done during the latter part of the test, to insure that personnel at the sites had ample time to gain familiarity and experience with microfiche.

e. The data obtained from the production documentation and the evaluation questionnaires were designed to provide answers to the following research questions:

(1) What are the users' reactions to the BASOPS outputs produced on microfiche?

(2) What production and distribution problems, if any, were encountered with the microfiche reports?

(3) What are the users' microfiche equipment requirements and preferences?

(4) What are the microfiche production equipment requirements?

(5) What are the baseline cost requirements for an in-house COM system?

(6) What are the baseline cost requirements for a COM service bureau capability?

f. Based upon the support of the respective test site POCs, the responsiveness of the vendors, and in accordance with the COMPACS Milestone Schedule, the test was scheduled to start on 7 July at Forts Huachuca, Lewis, and Sam Houston. The test at Fort Carson was intentionally scheduled to start on 14 July to enable members of the COMPACS Group to be on-site at both in-house sites at the start of the test.

7. DATA COLLECTION AT OTHER THAN TEST SITE INSTALLATIONS.

a. The data collection effort at all BASOPS installations other than those at which the prototype test were conducted was started as an adjunct to Phase II, with the publication and distribution of HQDA Letter 18-75-2, dated 27 May 1975, attached at Annex H.

b. As sanctioned by the first SAG, the COMPACS Group initiated arrangements to conduct three one-day workshop sessions in different geographic locations for the purpose of orienting and training installation POCs on COMPACS and in its data collection effort. The purpose of conducting workshop sessions - at which POCs would attend based upon their geographical location, as opposed to having members of COMPACS visit each BASOPS installation - was prompted by the fact that TDY expenditures would be reduced in the former instance. The sessions were held on 13, 20, and 30 May 1975 at Washington, D. C., Fort Carson, Colorado, and Fort McPherson, Georgia, respectively, and each BASOPS installation POC attended one of the workshop sessions. Many installations sent one or more individuals in addition to the POC. These attendees represented such functional areas as records management, administrative services, logistics, management information, and finance and accounting.

c. The workshop sessions resolved many issues which could have arisen at installation level, and provided an opportunity for a direct interchange of information among the POCs concerning the manner in which the data collection would be accomplished. In conducting the workshop session, COMPACS sought to steer it with informality, encourage questions and comments, and develop a free-flowing exchange so that common solutions to individual installation problems or matters could be reached and made available to all. The Group requested that the POCs give the data collection effort their personal and continuing attention to insure its accurate and timely completion since its results would be used by COMPACS in Phase V of the study, i.e., the Systems Proposal Phase.

8. SECOND SAG MEETING.

The second COMPACS SAG meeting was held on 24 July 1975, the complete report of which is on file in the COMPACS office. The purpose of the meeting was to brief its membership on COMPACS activity since the initial SAG meeting, provide the SAG with a status report by milestone events, and offer the SAG an opportunity to provide guidance to the COMPACS Group. During the meeting the SAG was advised that the detailed event entitled "Service Center Feasibility Study," which was an optional event for COMPACS, would be performed as an assigned objective by the Administrative Systems Division of TAGCEN as opposed to being accomplished by the Study Group. The SAG was also informed that the detailed event entitled "Funding/Procurement for Optimum Systems" was scheduled to commence in mid-August and that action pertinent to it would be reported upon at the next SAG meeting. The SAG evidenced satisfaction with the progress made by the Group, requested that

particular attention be paid to maintenance requirements during the test, cautioned about the extension of interim-COM in view of the attainments of COMPACS to date, and approved the conduct of an In-Process Review among the test site POCs to enable an exchange of information and experience relating to the test.

9. PHASE ADJUSTMENT. It will be noted that certain events of COMPACS programmed for completion in Phase III, were, in fact, accomplished to a large extent in Phase II. This was primarily due to the fact that the Data Collection Sheets, developed and designed for use at the test sites, were able to be used for the subsequent data collection effort at the non-test BASOPS sites. Similarly, the program developed by USAMSSA for the automated capture of the data obtained from the test sites proved to be satisfactory for use in the larger collection effort at the non-test sites.

SECTION VII - PHASE IV ACTIONS

1. GENERAL. During this phase of the study, the Group concentrated its activities in four principal areas in accordance with the milestone schedule and as prescribed by the SAG. These areas concerned evaluation of the COMPACS test, funding and procurement, conduct of an In-Process Review for MACOM Coordinators and test site POCs, and conduct of a benchmark test of the computer time required to process BASOPS spool tapes. Each area is discussed in the following paragraphs.

2. EVALUATION OF COMPACS TEST. As opposed to relying solely upon an analysis of the various questionnaires, production equipment logs, and after action reports of the POCs, COMPACS actively engaged itself in monitoring the test. By so doing, the Group sought to conduct a continuing appraisal of the test through visits to the prototype sites for discussion with users, supervisors, production personnel, and representatives of various vendors. This procedure additionally provided an opportunity for the Group to render advice and assistance, to encourage the placement of additional reports on microfiche, to evaluate the responsiveness and effectiveness of vendor support, and to assist users in working with microfiche.

a. Accordingly, during the period 9 through 18 July, members of the Group visited each test site. The principal purpose of the visit at the start of the test was to provide on-site assistance, to help identify and to resolve initial problems, to check placement of readers and reader-printers, to interface with vendors, as appropriate, and to check quality control measures. The COMPACS members, POCs, and vendor representatives met at each in-house site and took action to resolve issues associated with the quality of masters and duplicate microfiche; the delivery of outstanding readers, reader-printers, and supplies; the desirability of establishing a stockage level of supplies and spare parts, and related matters.

b. Likewise, members of the Group were again on-site during the period 7 through 12 September. During this visit the COMPACS members reviewed the progress of the test, checked on the placement of and identified any problems encountered with maintenance and operation of equipment; reviewed the qualitative and quantitative aspects of BASOPS reports on COM; checked on interface with vendors to include service bureaus; interviewed users and supervisors regarding use, acceptability, and reaction to the COM medium - i.e., desire to receive more or less on COM; problems encountered; training requirements, and the like.

c. Concerning the test itself, certain events tended to inhibit or, to interfere with the conduct of the test. For instance, at Fort Sam Houston, the hardware configuration was upgraded to include the central processing unit (IBM 360 MOD 40 to a MOD 50) and peripheral devices at the same time as the COMPACS test began. A delay in shipping the core, which extended the CPU from its 128K to 256K, reduced the machine time available to debug and test the software to be utilized in extending COM into SAILS and SIDPERS. Additionally, the contractor providing COM services to Fort Sam Houston had difficulty in obtaining COM production equipment to support turnaround and production requirements. At Fort Lewis, the service bureau was relocated from Seattle to Tacoma, which caused a few days of interrupted service. However, the service bureau relocation had the beneficial effect of reducing turnaround time in the long run. During the latter stages of the test at Fort Huachuca, considerable effort was spent by individuals involved with the COMPACS test in preparing for the extension of SAILS to that installation. As at Fort Sam Houston, an upgrading of Fort Huachuca's central processing unit and a change in peripheral equipment caused a delay extending SIDPERS in the COM mode to lower organizational levels. At Fort Carson, the production of SAILS in a COM mode necessitated extensive software development. These unexpected difficulties at the prototype sites were overcome through the cooperation of test site personnel and the MACOMs involved with the study.

d. As indicated previously, the POCs at the test sites were requested, as an integral part of the test plan, to furnish information with respect to six research questions. An analysis of responses to the inquiries revealed the following with respect to each:

(1) "What were the users' reactions to the reports converted?"
As determined by members of the COMPACS Group during discussions and interviews with users at the respective test sites, the general user reaction was most favorable and, in fact, more favorable than had been anticipated. In this regard, the anticipated user resistance to the receipt of reports in a different medium was, in large measure, almost negligible. As a corollary, users evidenced a remarkable degree of receptivity, appreciated the ease with which the microfiche could be carried as opposed to hard copy paper reports, sensed a "status symbol" with respect to having a new and modern piece of equipment, and found the microfiche to be a cleaner and easier medium to work with on a daily basis. Many of the users offered valuable suggestions concerning fiche titling and/or indexing during the interviews or included comments to that effect on the questionnaires completed by them. In evaluating user reactions, it was noted that while some users mentioned difficulty with particular reports, they favorably accepted other reports on fiche.

The problems generally concerned the necessity of writing on a report, or a report that (in its paper form) was divided and the pages re-sorted to a different sequence prior to use and storage. Not all reports requiring notes were identified as problems, and it was noted that a report that caused difficulty at one site was not necessarily a problem at another. Several users suggested that increasing the frequency of a particular report might eliminate, or at least reduce, the seriousness of the notation problem. In summary, from interviews and an analysis of the data collection sheets, users generally expressed enthusiasm for the microfiche reports, showed a desire to see more reports produced on fiche, and had little overall difficulty in using the product. They liked the advantages of being able to maintain a desk file and the ease of handling the less bulky format.

(2) "What production and distribution problems, if any, were encountered with the microfiche reports?" In addressing the production aspect, it is pointed out that the various vendors at the in-house sites made a concerted effort to insure that the production equipment (i.e., the mini frontend computer, recorder, processor, duplicator, and combined recorder-processor, as appropriate) was delivered, installed, and operational at the start of the test. With respect to the reliability of the production equipment, an analysis of the production and maintenance revealed that:

(a) At Fort Huachuca, there were maintenance calls on the COM recorder on sixteen occasions; however, no productive time was lost because of a need to repair the recorder. Fifty per cent of the maintenance calls were associated with efforts to realign or improve the image. The other half were associated with minor camera repair matters, such as polishing the lens mechanism. The film processor required three repairs consisting of action to correct minor leakage, the need to change rollers, and the replacement of a pump. On the duplicator, most of the problems were associated with the control of the temperature. There was one instance wherein the duplicator was inoperative over the GSA 24-hour limit, which was caused by the necessity of having to obtain a heat sensor from the factory.

(b) At Fort Carson, the combined recorder/processor was down seven times. As in the case at Fort Huachuca, half of the maintenance calls involved problems associated with the film processor, to include an instance wherein the rollers scratched the film; the other half involved minor difficulties with the camera. The duplicator was inoperative on three occasions, to include one over the 24-hour GSA limitation. That

was brought about by the fact that the customer engineer had been given an improper lamp and had to have another delivered.

(c) Each of the instances mentioned, obviously, had an adverse influence on the production of the BASOPS reports in the microfiche medium; however, that adverse influence was not severe and did not affect the validity of the test. Both Datagraphix and NCR made a concentrated effort to provide timely assistance when malfunctions occurred and the customer engineers appeared responsive to maintenance calls.

(3) "What are the users' microfiche equipment requirements and preferences?" As indicated earlier, the COMPACS Group insured that a variety of readers and reader-printers was obtained so that users would be provided the opportunity to be exposed to different models and makes of readers. By that means, information concerning the particular features that users preferred or did not prefer could be obtained. Additionally, it provided an opportunity for users to comment on features they would like to see on readers.

(a) An analysis of the evaluation sheets revealed that some users were less than impressed with the particular reader model assigned to them during the test, while others evidenced nearly total satisfaction with the reader provided. While the COMPACS Group encouraged the exchange of readers among users to afford an individual the chance to work with and use several models, this was not done as extensively as had been desired. The principal reason for not exchanging readers appeared to be the logistical and administrative effort involved in relocating the readers among functional elements located in widely dispersed areas on an installation.

(b) Among the many comments made by the users, one of the most prevalent concerned the desire for the dual screen carrier to facilitate the comparison of data. Another frequent comment was the desire for a line marker that would assist in reading long rows or columns of financial or logistical data and copying figures without obliterating information. Many individuals remarked that providing left-handed controls would allow the right hand to remain free for the taking of notes or copying. Numerous users, who wore either bi-focals or tri-focals, included comments on the evaluation sheets to the effect that the flush or straight screen caused them to get headaches, neck pains, or eye strain as a result of "looking at, turning away from, and then relooking at" the screen on a rather

continuing basis. Users also remarked about the silhouette and size of the reader. They indicated that some readers were too high for use on desks and/or occupied too much of the working area of a desk. Lastly, some users noted that the readers with which they were familiar appeared to have an excessive degree of brightness in the screen. Some of the difficulties encountered by users were able to be corrected by supervisors, the POCs, and members of the COMPACS Group during visits to the functional areas while at the test sites. Remedial measures included such action as relocation of the reader away from direct sunlight, the placement of a reader on a lower table adjacent to the desk of the user, the design of a "make-shift" hood to deflect light, and in some instances the actual change of readers where more than one make or model was located within a functional area.

(c) In reviewing the reader evaluation questionnaires, the COMPACS Group had reconfirmed from them an aspect which members noted during their visits to the prototype sites. That aspect concerned the lack of general orientations on the use of microfiche and an absence of training on the use of reader equipment. Many users commented to COMPACS members in person and noted on the questionnaires that the manufacturers provided little, if any, training in the use of the reader or the basic rudiments of maintenance. During the on-site visits, COMPACS members also noted that, in a few instances, users were not aware that the screens in their readers were reversed, which caused some difficulty since the fiche must be reviewed by looking at the shiny surface of the screen. It was also noted that some users were unfamiliar with the manner in which the alpha-numeric grid related to the microfiche, were not acquainted with how to adjust the focus, or how to replace a burned-out lamp. As could be expected, such relatively minor areas of difficulty served as an irritant to the user until his supervisor, the POC, or a COMPACS representative demonstrated the proper care and use of the equipment.

(d) With respect to the reader-printers, the various makes and models satisfied the needs of users at the test sites, and no particular problems were noted with them other than the generalized lack of user training. Since relatively few reader-printers were obtained for use in the test, which was primarily to preclude a proliferation of paper copies, an evaluation questionnaire was not developed for completion by users. However, both POCs and COMPACS members noted that the reader-printers were used primarily for viewing reports on microfiche, as opposed to being used for the purpose of making paper copies of the reports, their primary function.

(4) "What are the microfiche production equipment requirements?"

Based on experience obtained at the in-house test sites, the microfiche production equipment requirements can be simply stated as a need for a COM recorder, processor, duplicator, and certain auxiliary equipment, to include densitometers, fiche cutters, and film cleaners. However, from visits to the prototype sites, comments from the Coordinator/POC, review of the production and maintenance logs, and an examination of the microfiche, an analysis clearly reveals that:

(a) As indicated previously, a Datagraphix recorder was used at Fort Huachuca and an NCR combined recorder/processor at Fort Carson. The recorder at Fort Carson incorporated an "on-line" film processor, whereas that at Fort Huachuca did not. In the case of the "on-line" processor, the film was processed after exposure and did not require separate handling as did that produced at Fort Huachuca. A mini frontend computer was used at Fort Huachuca for titling and indexing. While reformatters have proved their usefulness and effectiveness on a cost basis in COM service bureaus, the COMPACS Group and the Coordinator at Fort Huachuca noted that a reformatter would not fully support the uniquenesses found in the BASOPS environment without additional cost. The added cost would include expenditures for a write tape unit, additional disc, and memory.

(b) With respect to the film processor, non-plumbed processors were used at both of the in-house sites. Periodically throughout the test, some difficulty was encountered in that the master film was not as clean as desired because the original film retained residual chemicals. Thus, in the duplicating process, the lack of a clear image on the original film reappeared or manifested itself in the duplicates. This difficulty was overcome during the test by changing the water bottles more frequently or by rewashing the original film. Indications are that this particular problem could have been avoided had a plumbed processor been obtained and installed, since it would have provided an adequate washing cycle for the original film and tended to insure its cleanliness for the duplication process, as well as insuring its archival permanency.

(c) Concerning the duplicator, at Fort Huachuca a vesicular duplicator was obtained and installed, while at Fort Carson a diazo duplicator was used. COMPACS members and POCs observed that individual users tend to prefer the duplicates produced on the diazo equipment. This was so since the color (very light blue) and opatic quality of the vesicular film caused difficulty in seeing clearly the eye-readable alpha and numeric characters in the title area. This trait did not

exist with duplicates produced on the diazo equipment due to that film's considerably darker blue color. In essence, the COMPACS Group and the Coordinator/POC were of the distinct impression that the greater contrast obtained through the diazo film minimized any problem in identifying the eye-readable character in the title area.

(5) "What are the baseline cost requirements for an in-house COM system?" Shortly after its constitution, the COMPACS Group was of the opinion that there were three areas of consideration associated with a baseline cost assessment of the establishment of an in-house COM capability. These were: peripheral or user level equipment and the cost associated therewith; the basic production equipment and the costs, either on a purchase or lease basis, related thereto; and supplies to sustain an installation's in-house capability coupled with the costs inherent to the procurement of those logistical items. Accordingly, the Group gave considerable attention to these areas with respect to planning and controlling the test at the prescribed in-house prototype sites. With respect to each of these areas:

(a) At Fort Huachuca:

1. The basic user equipment involved readers and reader-printers, of which 50 readers and five reader-printers were obtained. With respect to the former, the readers were purchased at an average cost of \$300, while the reader-printers were acquired at a cost of \$1,670 each. Since the standard logistical sub-system of BASOPS (SAILS) had yet to be extended to that installation, the Group realized that if the implementation of SAILS at Fort Huachuca were accelerated, additional readers as well as possibly additional reader-printers would have to be procured.

2. The basic production equipment involved the use of a mini frontend reformatter, a processor, a recorder, and a duplicator as has been previously stated. While the Group and the Coordinator both realized that the conduct of the test could be accommodated without the use of the mini-computer, each recognized that a need existed to utilize a mini frontend for comparative purposes. The cost associated with the lease of the aforementioned equipment averaged, on a monthly basis, \$4,555 for the mini frontend computer, processor, and the recorder, and \$560 for the duplicator.

3. Supplies, consisting principally of those for the support of the production equipment, as well as those required for readers and

reader-printers, averaged \$1,020 per month. A portion of the expenditures for supplies consisted of items which would constitute a basic operating stockage.

(b) At Fort Carson:

1. The basic user equipment involved the utilization of readers and reader-printers, as at Fort Huachuca, of which 191 readers and five reader-printers were obtained. The readers were purchased at an average price of \$211, and five reader-printers were leased at an average cost of \$75 per month. The larger number of readers procured for Fort Carson, as compared to Fort Huachuca, was based on the fact that the three sub-systems of BASOPS were employed at Fort Carson, as opposed to only two of the sub-systems at Fort Huachuca. Also, Fort Carson serviced a larger (252%) population.

2. The production equipment consisted of a combined recorder/processor and a duplicator. Since an individualized recorder and processor were used at the other in-house site, the COMPACS Group deemed it beneficial for a different type unit to be employed during the test at this prototype site. The average monthly cost of the combined unit was \$2,385, and the average monthly cost of the duplicator was \$535.

3. Supplies, again consisting primarily of those required for the production equipment, as well as those associated with the reader-printers, averaged \$815 per month. As was the case with Fort Huachuca, a portion of the logistical items consisted of those which would enable the installation to maintain a working level stockage.

(6) "What are the baseline cost requirements for a COM service bureau capability?" As the COMPACS Group recognized with respect to a baseline cost assessment of an in-house capability, the same three areas of concern existed in regard to the service bureau mode: user equipment, production equipment, supplies, and the costs of each.

(a) At Fort Lewis:

1. Only two of the standard sub-systems were operational; however, the installation opted to place a substantial portion of

SUPPLY I (precursor to SAILS) on COM; thus, a total of 151 readers, at an average cost of \$188, and five reader-printers, at an average monthly cost of \$80 each, were procured. The COMPACS Group recognized the fact that when the installation converted to the use of SAILS, the number of readers would have to be modified further.

2. Since this prototype test site was already long since operational in a service bureau mode, its production equipment and associated costs (as would be the case with any installation conducting COM operations in such a manner) would vary from those incurred by an in-house site. Thus, the actual production costs consisted, in reality, of charges associated with the commercial production of masters and duplicates. At this installation, the Group noted that the average of producing an original was \$1.50 and was \$.10 for the production of each duplicate. During the period of the test and through the end of the calendar year, the average monthly production of originals was 577, and the average number of duplicates produced was 6,616, for an average total monthly cost of \$1,525.

3. Supplies used at the prototype site consisted almost singularly of those associated with the procurement of paper for use in the reader-printers located at the installation. As indicated previously, the use of this equipment was principally as a reader; thus, the cost of paper for the reproduction of hard copy proved negligible.

(b) At Fort Sam Houston:

1. A total of 115 readers and five reader-printers were obtained for this prototype test, at which all of the sub-systems within BASOPS were employed. The average purchase cost of the readers was \$203, and that of the reader-printers was \$1,367.

2. Since operations at this installation were also conducted in a service bureau mode, it too avoided any costs associated with the use of production equipment. Thus, its production costs were directly attributable to those charges associated with the production of masters and duplicates from a commercial service bureau, which were \$2.50 per master and \$.14 per duplicate. From the start of the test through December 1975, 2,142 masters and 50,155 duplicates were produced, at an average total monthly cost of \$2,080. The COMPACS Group noted that at the time the contract for the service bureau was renegotiated, provisions for a sliding scale type of contract existed, and adoption of such could have reduced production costs, per se.

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3. Supplies used consisted primarily of paper for the reader-printers; however, as was the case at Fort Lewis, the equipment was used principally as a reader; therefore, cost of the supplies was negligible.

3. FUNDING AND PROCUREMENT REQUIREMENTS. Shortly after its establishment, the COMPACS Group became directly involved in developing and projecting funding requirements for the balance of FY 76, as well as for FY 77, FY 78, and the out years, in addition to actions associated with procurement. With respect to the former, the Group formulated projected budgetary requirements without the benefit of the experience that would be gained from the conduct of the prototype test, since the test was to be conducted three to four months in the future. Accordingly, its forecast of anticipated fiscal requirements for the varied periods involved were primarily conjectures, tempered by the limited knowledge possessed by some of its members with COM in both the in-house and service bureau environments. This was augmented by the advice and assistance of representatives within GSA, consultations with vendors, and the experience of other governmental and industrial organizations that had adapted COM in lieu of hard copy paper. Accordingly, the following budgetary submissions were developed initially; however, based upon the budgetary review process, each underwent major iterations.

a. For FY 76, a requirement for \$1.1 million was developed and submitted as a part of the FY 76 TAGCEN Command Operating Budget. Taken into account was the fact that, pursuant to the chartering CSM, the proliferation of BASOPS-COM (its implementation) was to begin in the fourth quarter of FY 76. An assumption was made that, upon approval of BASOPS-COM, ten service bureau sites would become operational in that quarter, the majority of which would be those installations by then operating under interim BASOPS-COM. Those sites, in addition to the four test locations, would result in fourteen operational sites by the end of FY 76. The requested \$1.1 million was categorized by elements of expense to include \$12,000 for travel, \$66,000 for contractual services, \$60,000 for supplies, and \$940,000 for equipment requirements. The greater portion of the latter amount consisted of the costs associated with the procurement of readers, which were programmed to consume \$800,000 based on a projected requirement of 400 readers per installation.

b. During the fiscal transition period, or FY 7T, the projected implementation schedule called for adding one additional service bureau and eight in-house sites. Cumulatively, the "bringing on" of

the nine added sites would have resulted in a total of twenty-three installations conducting operations in the COM mode by the end of FY 77. To accomplish the foregoing, it was estimated that \$1.2 million would be required, to include \$28,000 for travel costs, \$243,000 for contractual services, \$119,000 for supplies, and \$834,000 for equipment. The quantum jump in the amount programmed for contractual services was due to the planned addition of the in-house sites.

c. The remaining 19 of the total 42 BASOPS sites were envisioned to become operational during FY 77 at an estimated cost of \$4.3 million. Of those, 14 were programmed to be in-house, and five as service bureau contracts. Thus, at the end of FY 77, all BASOPS installations were programmed to be operational in the COM mode, with 24 on an in-house basis and 18 utilizing a service bureau contract. It was recognized by the Group that the contemplated modes could change based on study results, funding, and other factors. The breakout of the estimated cost for FY 77 was \$45,000 for travel, \$1,694,000 for contractual services, \$850,500 for supplies, and \$1,725,850 for equipment.

d. BASOPS-COM continuing costs for FY 78 and beyond were programmed to require \$3 million annually. These annual operating and maintenance costs included projections of \$20,000 for travel, \$1,900,000 for contractual services, and \$1 million for supplies. It was estimated that the savings to be derived from BASOPS-COM - which would be obtained through such as paper costs, postal fees, and printing charges - would begin in the early 1980s if all BASOPS installations went into full COM operation in late FY 77 as contemplated by the COMPACS Group.

e. As previously indicated, the funding estimates went through several iterations and were constantly being refined by the COMPACS Group. As experience was gained through the conduct of the test, as information was obtained regarding BASOPS locations which could be adequately serviced by commercial or governmental service bureaus, and as the results of the study concerning consolidation of administration at the battalion level became known, the projected funding requirements were revised downward. In this regard, it was learned from evaluating the results of the test that, in all probability, the number of readers which had been scheduled for procurement for each installation was high. Also, it was recognized that the anticipated centralization of company administration at the battalion level would seriously lessen, if not minimize, the equipment for readers to be located at the company. Actions such as the foregoing had the effect of decreasing the number of readers which would have to be obtained, and thereby impacted upon all budgetary projections. An additional factor which caused decreased

financial requirements was the determination by the COMPACS Group that commercial COM service bureaus existed on a broader basis than originally thought, and that many service bureaus were being established in new locations near BASOPS installations. Therefore, if an installation originally programmed to be "in-house" could be adequately provided service from a local or newly established COM service bureau, the total expenditure of funds to procure equipment would be reduced significantly, thus impacting upon budgetary projections.

f. Concerning actions with respect to procurement, the COMPACS Group had several conversations and meetings with representatives of GSA. During the last meeting, GSA stated that they would not only be capable of handling, but desired to handle, the procurement action to include both the in-house and service bureau contracts, as well as those for supplies and equipment. In this regard, GSA had recently concluded the procurement actions for a COM system for the Marine Corps which involved eight dispersed locations within CONUS and overseas. Additionally, GSA advised the Group of their direct involvement in processing a procurement action for the US Army Materiel Development and Readiness Command (DARCOM) for the National Inventory Control Points (NICP), which involved six COM units that would be placed at diverse locations within CONUS.

g. Four possible alternatives with respect to funding the procurement of BASOPS-COM were reviewed by the Group and discussed with GSA in general terms. These consisted of HQDA central funding, MACOM funding, installation funding, and a combination of two or more of the foregoing. A review of these various alternatives and the advantages and disadvantages associated with each was conducted. Considered were such factors as command and control over the extension of BASOPS-COM, the economies to be derived from a single procurement, the need for compatibility of equipment, insuring consistency of product acquisition, and the ease with which contract compliance - to include training and maintenance - could be accomplished.

4. IN-PROCESS REVIEW. On 17 September, the COMPACS Group hosted an In-Process Review (IPR) for MACOM Coordinators and test site POCs, which also was attended by representatives from the Personnel and Administration Combat Development Activity (PACDA); the Office of the Director of Management Information Systems (DMIS), HQDA; and the Systems Development Directorate of TAGCEN. The primary purpose of the IPR was to provide a forum for an interchange of experience among test site personnel, discuss progress with respect to the conduct of the test, and to assist generally in aiding each test site's overall COM efforts.

a. The basic agenda consisted of an update of the COMPACS endeavors in which a synopsis of the most recent SAG meeting was presented. In an effort to foster informality and facilitate a free exchange of dialogue, a series of topics for discussion was developed and followed throughout the remainder of the IPR. Included were hardware (to include the experience to date with both production and user equipment), software, quality control procedures, distribution of reports, and prototype test site evaluation efforts.

b. During the IPR, the attendees were advised that a test of the transition time from spool tapes to microfiche would be conducted, using tapes from a Fort Carson representative BASOPS cycle output. At that time, the criteria for software evaluation was presented for review and feasibility approach. The criteria consisted of seven basic factors, to include: run time, core requirements, sort/stacking methods or options, the various methods of titling and indexing, report option capability/distribution, standards/compatibility, and maintenance. The MACOM coordinators and POCs expressed support of the software evaluation, and stated that every effort would be made to insure that adequate computer time would be made available to the COMPACS personnel.

c. The various MISO representatives agreed that the following basic parameters would be adhered to during the course of the test:

(1) Input would consist of a representative volume for each of the BASOPS systems, i.e., SAILS, SIDPERS, and STANFINS.

(2) All processing of test input would be in foreground partition in order to achieve true run time.

(3) Run time would be measured by wall clock in order to discount tape handling and console interrupt.

(4) In order to establish a basis for comparison, all test input would be processed and timed within the BASOPS spool routines.

5. BENCHMARK TEST, SPOOL TAPE PROCESSING TIME. While not a discrete prescribed event within the milestone schedule for COMPACS, a benchmark test of the time involved in the transition of spool tapes to microfiche was conducted, using a representative BASOPS cycle output from Fort Carson as a base. The test started during the week of 5 October and was completed on 9 October. With respect to Fort Sam Houston, testing

was delayed until 28 October, since at the time of the test at the other sites, Fort Sam Houston was undergoing an up-grading of its hardware.

a. As has been mentioned, each test site was permitted to introduce its own innovations, within established guidelines that the BASOPS systems themselves could not be modified. Accordingly, the service bureau test sites, because of their on-going participation in COM prior to COMPACS, were permitted to modify the COM software, to include those reports to be tested under COMPACS, and to use vendor supplied software for titling and indexing. The in-house sites were permitted to develop supporting software for the selection of the reports to be tested from the BASOPS spool tapes. However, at Fort Huachuca, all titling and indexing were required to be accomplished on the mini frontend by vendor supplied software; while at Fort Carson, vendor supplied software would be used for titling and indexing during a second pass on the BASOPS computer.

b. In the development and modification of the COM software, several unique factors surfaced which, in turn, influenced the following five software considerations:

(1) Selection of reports for COM and for continued hard copy. To support the selection, a standard PCN table was developed to identify the BASOPS reports. The development of the standard PCN table necessitated that consideration be given to the fact that there were multiple part reports in each sub-system, and that there was a variance in the location of the PCN among the sub-systems. In this latter regard, the PCN was fixed on each record within STANFINS; was fixed only on the control record within SIDPERS; and "floated" between positions 80 to 115 within SAILS.

(2) Distribution of reports within SIDPERS. Reports in this sub-system are required to be forwarded to varying levels of management - such as the SIDPERS Interface Branch (SIB), the Military Personnel Office (MILPO), the Office of the AG, other staff level agencies, the brigade and battalion level, etc., - all of which could be satellited on the supporting SIDPERS.

(3) Sort/stacking feature. Recognizing that each level of management should receive only that part of the report which pertained to it, the feasibility of placing more than one report on a single microfiche had to be addressed. In this regard, stacking actually consisted of placing more than one report on a single fiche, in such a manner that a particular user would receive a microfiche which contained two or more reports pertinent to his particular level of management.

(4) Classified reports. Consistent with basic governing security instructions and regulations, and the GSA requirements that contractors possess the requisite security clearance, it was necessary that the processing of classified reports within a service bureau mode be addressed. This consideration was prompted by the existence of a classified report within SIDPERS.

(5) Non-printable characters. A standard feature of a COM recorder is a solid, rectangular image equal in size to an alpha/numeric or special character. This image is used to overlay all computer generated characters not within the standard alpha/numeric or special character matrix, such as operation codes for flag bit assignments. This consideration arose in the production of reports in SAILS, where the computer generated characters outside of the standard alpha/numeric or special character matrix resulted in a "white blip" which was equal in size. A graphic portrayal which depicts the sub-systems or systems in which each of the various software considerations surfaced is attached as inclosure 1 to Annex I.

c. The representative BASOPS cycle output from Fort Carson selected for the test consisted of twenty-six spool tapes containing 116 reports, which represented 8,580 pages, as shown on Inclosure 2 to Annex I. The tapes were run at the prototype sites where the sub-systems were employed, with the exception of Fort Sam Houston where only SAILS was tested. SIDPERS and STANFINS were not tested at Fort Sam Houston due to magnetic tape failures. The results of the test were depicted in two methods, to reflect a breakout of volume comparison between the hard copy paper and COM medium, and a breakout of computer run time for processing the selected BASOPS spool tapes in the hard copy paper and COM medium. Graphic portrayals of the results are attached as inclosures 3 and 4 to Annex I.

6. THIRD SAG MEETING. The third COMPACS SAG meeting was held on 6 November 1975, the complete report of which is on file in the COMPACS office. The purpose of the meeting was to update the membership on COMPACS activities since the second SAG, provide the members with a status report by milestone events, and offer the SAG an opportunity to provide guidance to the COMPACS Group. During the meeting, the SAG was provided an analysis of the results of the test from both production and user aspects, advised of the actions taken with respect to funding for BASOPS-COM extension as well as procurement efforts, told of the In-Process Review for MACOM Coordinators and test site POCs, and advised of conduct of the benchmark test of the computer time

required to process BASOPS spool tapes. The SAG expressed satisfaction with the progress of the Group, and concurred in the Group's intent to isolate reports for placement on microfiche, to establish standardized titling and indexing, and to continue in its efforts to identify factors which would ultimately reduce the cost of BASOPS-COM extension.

SECTION VIII - PHASE V ACTIONS

1. GENERAL. During this phase of the study, the Milestone Schedule called for the Group to prepare the MICRODIS proposal and an implementation plan and schedule, staff the proposal with the MACOMs and HQDA proponents, and submit the proposal pursuant to AR 340-22 for processing. On 23 December, an in-house, in-process review was held at the request of the Chairman of the SAG. During it the progress by COMPACS to that point, on-going actions or those actions required to conclude COMPACS, and actions necessary to extend BASOPS-COM, were discussed. The IPR resulted in a request that COMPACS explore several areas in greater depth than originally provided for in its chartering documents, and in the assignment of requirements of such significant substance as to extend the Study Group until their completion. At the Study Advisory Group meeting held on 26 March, the membership, while sanctioning the expanded exploration and additional requirements that emanated from the IPR, concurred in the concept of BASOPS-COM as envisioned by the Study Group. The areas of endeavor discussed at the IPR, presented to the aforementioned SAG, and worked upon extensively by the COMPACS Group since, are reflected in the paragraphs which follow.

2. REPORT SELECTION.

a. Prior to the IPR, correspondence was forwarded to the HQDA proponent of each sub-system eliciting reaction to placing specific outputs on microfiche. Attached to the correspondence was a listing of all the reports in each sub-system. The list was annotated to show those reports produced on fiche, produced on fiche/stacked mode, and not produced on fiche at each test site. Where a report was produced and used successfully at two or more prototype test sites, COMPACS recommended to the proponent that it be mandatorily placed on fiche. Likewise, where a report was produced and successfully used at only one test site, COMPACS recommended that it too be mandatorily placed on fiche. This rationale was based on the assumption that if one installation could use the report on microfiche, there appeared to be no viable reason why other sites could not use it in that mode. Those outputs not produced by any test site on fiche during the three-month period of the test, were recommended by COMPACS for placement on microfiche at the prerogative of the installation. If the proponents had agreed with the COMPACS proposal, the following quantities of reports would have been placed on fiche:

	<u>MANDATORY</u>	<u>OPTIONAL</u>	<u>TOTAL</u>
SAILS	80/90	103	273
SIDPERS	70/18	49	137
STANFINS	<u>65/66</u>	<u>30</u>	<u>161</u>
	215/174	162	571

b. After the IPR, informal contact with the HQDA proponent of each sub-system revealed that, while concurring in the COMPACS recommendation to categorize reports for placement on microfiche, some were reluctant to the use of the term "mandatory." The basis for the foregoing included a desire to leave the absolute determination as to which reports should be placed on microfiche with the functional user in the field. Additionally, by leaving the final decision with the functional user, it was believed that the probable need of granting exceptions - which, for example, could occur through changes in organizational management or organizational structure - to the "mandatory" category at the MACOM or HQDA level would be obviated. Accordingly, the COMPACS Group suggested that the proponents consider placement of the reports into two categories (recommended and optional). Those which would be placed into the recommended category would consist of reports initially earmarked as mandatory and recommended by COMPACS in addition to those not produced in fiche at a test site but so designated by the proponent. The optional category would consist of those reports so proposed by COMPACS less any that the proponent opted to designate as recommended or those the proponent preferred to designate as optional. The HQDA proponents concurred with the compromise suggested by COMPACS; thus, the following number of reports within each sub-system would be recommended for placement and optional for placement on fiche:

	<u>RECOMMENDED</u>	<u>OPTIONAL</u>	<u>TOTAL</u>
SAILS	211	62	273
SIDPERS	91	46	137
STANFINS	<u>109</u>	<u>49</u>	<u>158</u>
TOTAL	<u>411</u>	<u>157</u>	<u>568</u>

c. This compromise was presented to the SAG on 26 March 1976. While concurring in the need to categorize reports for placement on microfiche, the membership was concerned that the savings to be achieved by COM would be jeopardized unless there was a core listing of reports which would be mandatory for production in the COM mode. The Chairman suggested that the proponents visit several of the test sites to ascertain report usage and user reaction to fiche, with a view to developing a "hard core" listing of reports for mandatory production in COM. Based on this, the proponents would then provide COMPACS a listing of reports in one of three categories: mandatory, recommended, or other.

d. COMPACS then recanvassed the test sites to determine the actual production mode as of 31 March 1976 for each report in the sub-systems. This data was forwarded to each proponent with a request that the listing be reviewed to ascertain the relationship each report had within the management structure of the sub-system, to assist in verifying the placement of each report into a production mode category, and to enhance discussions between the proponent representative and functional personnel at the test installations during visits to several of the prototype sites. Members of the COMPACS Group and representatives of COA and MILPERCEN visited Fort Sam Houston from 10 to 12 May, and were joined by an ODCSLOG representative at Fort Carson during the period 12 - 14 May. During each visit the proponent representatives assessed the viability of producing each report in the COM mode, ascertained user reaction as to the acceptability of fiche, and developed a preliminary listing which contained those reports to be placed into a mandatory, recommended, or other production category. After refining the listing upon return to their parent agency/command, COMPACS was furnished data which revealed that the number of reports shown would be designated for placement into the indicated category:

	<u>Mandatory</u>	<u>Recommended</u>	<u>Other</u>	<u>Total</u>
SAILS	149	86	38	273
SIDPERS	104	27	6	137
STANFINS	77	10	71	158
TOTAL	330(58%)	123(22%)	115(20%)	568

e. The foregoing data was subsequently used in the preparation of the Cost Benefit Analysis. Additionally, the data will be used by each sub-system proponent to issue an addendum to their User's Manuals, which will indicate the outputs that will be produced on COM, and to urge the use of COM for those outputs placed in the "recommended" and "other" categories. This action should insure that savings projected by the Cost Benefit Analysis are achieved.

3. TITLING AND INDEXING.

a. At the IPR, it was pointed out that correspondence would be sent to each proponent with a recommended standard titling and indexing scheme for unstacked and stacked reports. As an inclosure to the basic correspondence, there would be a sheet which would depict the titling and indexing scheme used for the reports in an unstacked and stacked mode within each particular system at each test site. Additionally, as a result of reviewing the methods used at each site, there would be an inclosure containing the titling and indexing scheme recommended

by the COMPACS Group. That proposed by COMPACS would be a combination of the various methods in use at the four test sites. This was due to the fact that there were various features of each, such as columnar titling for stacked reports which was done at Fort Lewis, that were considered highly desirable by COMPACS. The proponents would be requested to concur in the standard titling and indexing considered the most desirable by COMPACS, or to provide revisions. It was emphasized that the ultimate goal was to have standard titling and indexing schemes within each respective sub-system so that, for example, a STANFINS report produced at Fort Polk would be identical to one produced at Fort Devens.

b. The above was accomplished prior to the SAG with each proponent concurring in the standardized titling and indexing recommended by COMPACS. The following two recommendations were also adopted:

(1) MILPERCEN's observation that the clear frame with dark lettering in the header area was more readable, especially with the stacked report format. Since this would equally be the case with reports in an unstacked format, COMPACS was of the opinion that it should be adopted for both stacked and unstacked report formats.

(2) CSC's recommendation that the "report title" be added to the items of data to be included among the minimum title requirements for stacked reports. COMPACS had recognized that this was needed in unstacked formats, and concurred in the recommendation to include it in the stacked report title requirements as well.

c. With regard to the minimum items of data to be included on reports in an unstacked and stacked mode, it was determined that the following would be included:

UNSTACKED

STACKED

SYSTEM IDENTIFICATION

CYCLE DATE
CYCLE NUMBER
FICHE NUMBER

REPORT CLASSIFICATION

REPORT TITLE
FROM/TO RANGE
INDEX (Frame 018)

CONSTANT "STACKED REPORTS"
IN PLACE OF REPORT TITLE

PCN (last 6 characters (in
eye readable form) over
first frame of report)

d. The proposed standardized titling and indexing schemes were presented to the SAG, to include the recommendations offered by CSC and MILPERCEN, and were accepted by its membership without exception.

e. COMPACS subsequently developed the General Functional System Requirements (GFSR) for a standard BASOPS-COM, and forwarded the GFSR to CSC. Based upon the GFSR, that command developed the Detailed Functional System Requirements (DFSR) which contained the specifications for a standard method of selecting reports and titling and indexing microfiche. Both the GFSR and the DFSR were then included as a part of the BASOPS-COM specifications, destined to be forwarded to the General Services Administration (GSA) for inclusion in the Request for Proposal to be issued by that Agency.

4. COM SOFTWARE IMPLEMENTATION ALTERNATIVES. COMPACS identified three possible alternatives for extending BASOPS-COM from the software aspect; described each in terms of the time required for its implementation, i.e., short, mid, and long range; and presented them during the IPR, as follows:

a. The "short-range" alternative was described as representative of that in existence at the prototype test sites, consisting of a second pass on the host computer using the local MISO developed and vendor supplied supporting COM software. Implementation of this alternative would involve allowing each installation to use its own COM program, or selecting COM software and hardware from one test site and implementing it at each BASOPS installation designated for in-house COM.

b. While similar to the "short-range," in that a second pass on the host computer would be required, the "mid-range" alternative would provide for all report selection and stacking to be done during the normal job stream. All titling and indexing would be accomplished by vendor or service contractor supporting COM software during the second pass. It was pointed out that adoption of this mode would cause minimal modification of existing standard job streams.

c. The "long-range" alternative was determined as the most desirable for COM; however, in view of the major modification requirements involved, it would also be the least practicable for existing BASOPS systems. Under it, all report selection, stacking, titling, and indexing would be accomplished during the normal job stream. Outputs would consist of separate spool tapes for direct input to the normal BASOPS print routines, and separate spool tapes for direct input to the COM recorder.

d. Each of the ranges was analyzed against the most significant factors that would be considered in the final recommendation, to be made as indicated in portrayal at Annex J. As a result, it was determined that:

(1) Only the mid-and long-range alternatives would satisfy BASOPS-COM standards for report selection, stacking, titling, and indexing.

(2) Within the short-range, software responsibilities would be shared between the installation MISO and supporting COM vendor or servicing contractors. This arrangement would require large-scale core and linkage requirements, or two separate passes of BASOPS spool tapes on the host computer. Within the long-range, CSC would have total responsibility for all supporting COM software. Within the mid-range, responsibilities would be shared between CSC and supporting COM vendors or servicing contractors. This arrangement would satisfy BASOPS-COM standards, in that CSC would maintain the selection and stacking of reports, and the supporting COM vendors or servicing contractors would maintain the titling and indexing as specified by Army standards; permit single or multiple procurement of supporting COM hardware or servicing contractors; and require less core and computer run time during the second pass of BASOPS spool tapes on the host computer.

(3) On the assumption that existing COM software and supporting hardware at one of the test sites would be copied at each BASOPS installation designated for in-house COM, the least software preparation time occurred in the short-range. This, however, could negate any competitive bidding. The longest preparation time would exist in the long-range alternative due to the need to modify significantly existing BASOPS systems. Software preparation within the mid-range was based on the assumption of shared responsibility between CSC and supporting COM vendors or servicing contractors.

(4) Both short-and mid-range alternatives would require a second pass of BASOPS spool tapes on the host computer. However, based on the benchmark test, the total computer run time for the second pass would be significantly less than the total run time for printing all reports to hard copy.

(5) Computer run time was greatest in the short range and least in the long-range alternative.

(6) With respect to procurement, each alternative would satisfy a single vendor procurement approach. However, the need for COM hardware specifications for supporting COM software would inhibit effective

initiation of the short and long options until actual procurement. Therefore, because of shared software responsibilities between CSC and supporting vendors or servicing contractors, only the mid-range could be initiated before actual COM hardware procurement.

(7) The mid-range alternative offered the only flexibility for both service contract and in-house modes under either a single or multiple COM hardware configuration. In either case, the short-or long-range approach would be limited to either nonstandard software or single procurement of COM hardware.

e. After determining that the mid-range alternative would best satisfy the extension of BASOPS-COM from the software aspect, the Group contacted CSC and requested that they review all of the alternatives which COMPACS had identified. As a result of its review, CSC agreed that the mid-range alternative was sound in its approach and the most desirable. Simultaneously, however, CSC requested COMPACS to review a proposed spooling technique which had been developed separately to determine if its general specifications would serve as a vehicle to satisfy anticipated BASOPS-COM software requirements. The COMPACS Group reviewed the proposed spooling technique and determined that it would support the report selection process contained in the mid-range alternative. However, based on experience gained through the conduct of the prototype test, COMPACS identified three specific BASOPS-COM requirements that would have to be included in design specifications. These were as follows:

(1) Since the spooling technique would provide a PCN table for identification of reports for COM, the table would have to provide the capability for identifying classified or privileged reports, reports designated for stacking, reports which required an overlay for special forms, and a means to identify multiple reports and/or parts of reports under identical PCNs.

(2) A sort utility to implement user determinations of output sequencing would be necessary. This would be required due to the requirements of specific management levels, since the stacking of reports on a single or a sequential group of microfiche would affect report breakout and/or distribution needs.

(3) Linkage capability for titling and indexing software provided by vendor/servicing contractor would be necessary.

f. Subsequently, COMPACS representatives accompanied individuals from CSC to Forts Carson and Huachuca for an on-site evaluation of

the MISO and vendor software. The evaluation validated the COMPACS recommendation of the mid-range alternative and adoption of CSC's proposed spooling technique.

g. Intensive working sessions were then conducted between COMPACS and CSC representatives for the purpose of developing mutually agreeable and understandable BASOPS-COM software requirements and supporting specifications. The specifications defined the aspects of supporting software which would interface between BASOPS output and contractor provided indexing and titling (to include reformatting) software, and are attached at Annex K. CSC was then requested to confirm that the specifications for BASOPS-COM supporting software could be satisfied and supporting programs could be developed in time to be extended in the third quarter change package. The extension date requested corresponded with the milestone dates established by COMPACS and approved by the SAC on 26 March, and was so specified to permit a total interface with the procurement process for both the contract and equipment acquisition to be accomplished by GSA. CSC subsequently advised COMPACS that the proposed software specifications represented a feasible approach for BASOPS-COM, that it had initiated work on programming specifications, and that no difficulty was anticipated in completing BASOPS-COM software by the third calendar quarter of 1976.

h. Subsequently, CSC programming specifications for BASOPS-COM software were completed and forwarded to COMPACS for validation. In its simplest form, these specifications require two basic utilities. For the purpose of this documentation these utilities are identified as the "Product Control Table Maintenance Utility - U04ATP" and "SPOOLCOM Interface Utility - U07ATP". Although each utility is described in Annex K, it is noted that the SPOOLCOM Interface consists of two basic modules which link to form one program. The first of these modules, "U07ATP - root phase", is designed to perform the selection and stacking of reports and to provide a standard format interface record for titling and indexing. The second module, "U04ATPCI", is designed to perform the titling and indexing, as well as the translation of the American Standard Association carriage control characters. While the first of these modules along with the Product Control Table Maintenance Utility would be designed and maintained by CSC, the second module of the SPOOLCOM Interface Utility would be developed and maintained by responsible COM contractor(s). COMPACS reviewed the specifications for the development of BASOPS-COM software and advised CSC that they were considered valid.

i. In the correspondence which forwarded the programming specifications, CSC advised that the PCT Maintenance Utility and the root phase of the SPOOLCOM Interface Utility would be developed on a contractual basis as opposed to being developed on an in-house basis. COMPACS recognized that this action would impact on the milestones presented to the SAG on 26 March by adding approximately ninety days to such events as the conduct of the environmental test, the prototype of the software at Forts Carson and Lewis, the issuance of the COM specifications to GSA, award of the contract, and the actual extension of BASOPS-COM. Accordingly, COMPACS advised the chairman of the SAG of the unexpected decision to develop the BASOPS-COM software contractually and the impact of that decision on the milestones. COMPACS analyzed courses of action which would minimize the effect of the CSC decision in an effort to adhere to the milestones as presented to the SAG. The only course identified by COMPACS would be for the total COM specifications - to include those specifications for contractor titling and indexing software - to be forwarded to GSA prior to the software prototype. By so doing, the benchmark could be conducted, the contract awarded, and BASOPS-COM extension be effected as originally presented to and sanctioned by the SAG. In forwarding BASOPS-COM specifications to GSA prior to prototype, COMPACS recognized that should, for whatever reason, an unsuccessful prototype occur, it could impact adversely on GSA by requiring a change to the RFP, and upon participating COM contractors in their development of supporting software. Thus, to proceed in such a manner was considered a calculated risk that should not be taken. COMPACS, therefore, recommended to the Chairman of the Study Advisory Group that the two-to three-month slippage, which would occur with respect to the extension of BASOPS-COM, be accepted. The Chairman of the SAG approved the recommendation made by COMPACS. A copy of the adjusted milestone schedule is at Annex L.

5. MICRODIS PROPOSAL AND COST BENEFIT ANALYSIS.

a. This on-going action was discussed at the IPR, from the aspect of the decisions that would have to be made with regard to preparing and staffing the MICRODIS proposal for BASOPS-COM by using a "Decision Tree," a copy of which is at Annex M.

(1) The first decision would require the preparation of a cost benefit analysis for each installation between the present paper system and COM. This analysis would compare the cost of a COM system (in-house and service contract) with the cost of the computer paper saved based on the reports to be converted to COM. The cost of producing paper reports

would be retrieved from the COMPACS data base by USAMSSA. COM costs of service contracts (i.e., costs of master fiche, duplicates, and supplies) would be derived by averaging the actual costs experienced by the two test sites operating in a service bureau mode. The costs for in-house COM equipment would be based on an industry-wide average. In essence, the results of the cost benefit analysis would serve as the basis for the decision to go COM or remain with the current paper system.

(2) If the decision were to convert to COM, the next decision would entail identifying those installations that meet the "New Start" requirements of an increase of \$100,000 in annual operating costs or an additional capital investment exceeding \$50,000. COMPACS members were advised by ODCSLOG that the COM endeavor did not involve the development of a new system, per se, but rather the modernization of an existing system. Since the aforementioned thresholds should not be surpassed (due to the fact that entry into the COM mode is designed to conserve costs as opposed to expending additional funds, and capital investment costs will not exceed \$50K), the provisions of AR 235-5 (Management of Resources; Commercial and Industrial Type Functions) do not apply.

(3) If the "New Start" thresholds were exceeded, the next decision would involve a determination as to whether a contractor could comply with the COM specifications such as meeting the turn-around time. If no contractor could, sufficient justification would exist, pursuant to AR 235-5, for an in-house system at that installation.

(4) The cost benefit analysis for installations surpassing the threshold would be forwarded to the US Army Audit Agency, which, through prior contact, had indicated an ability to handle the request. The report of audit, TAGCEN comments, and the justification for going in-house based on the nonavailability of a contractor, would be included in the "New Start" proposal which would be sent through ODCSLOG to ASA (I&L) for approval of the in-house systems. The installations approved for in-house systems by ASA (I&L), and those not meeting the "New Start" proposal, would be consolidated to comprise the MICRODIS Proposal which would then be forwarded to the Administrative Systems Division of TAGCEN for staffing.

b. Immediately after the IPR, COMPACS retrieved the cost of producing paper reports (i.e., the current production mode) from the data base at USAMSSA so that the CBA could be prepared.

(1) For the proposed service contract environment production mode, the rates applied to the quantity of master and duplicate microfiche were determined by a weighted average technique. The technique used the prices from three major service bureau contractors and those installations capable of being handled by a contractor. The results were as follows:

<u>No. of Masters required per month</u>	<u>Rate</u>
1 - 99	\$2.31
100 - 199	2.04
200 - 499	1.86
500 - 999	1.69
1000 +	1.63

<u>No. of Duplicates required per month</u>	<u>Rate</u>
1 - 499	.163
500 - 999	.146
1000 - 2499	.129
2500 - 4999	.106
5000 +	.095

User supply costs were developed by averaging those experienced at the two service contract prototype sites, and should approximate \$100.00 per month per installation.

(2) Costs for in-house COM equipment were developed by averaging the purchase, maintenance, and lease (to include maintenance) prices contained in the Federal Supply Schedule for six vendors of COM recorders, four vendors of COM processors, and six vendors of duplicators. This resulted in a mean cost of \$86,470 for a COM recorder, \$8,754 for a film processor, and \$15,289 for a duplicator on a purchase basis, with associated maintenance costs of \$7,578, \$1,218, and \$1,366, respectively. On a lease basis, including

maintenance, the average costs were \$25,044 for a COM recorder, \$4,008 for a film processor, and \$5,342 for a duplicator. Preparation of a lease versus purchase analysis (as contained in AR 18-1), a copy of which is attached at Annex N, indicated that it would be most economical to lease the COM recorder, purchase the film processor, and lease the duplicator. Supply costs for an in-house site were developed by averaging those experienced by the two in-house prototype sites, and should approximate \$1,000 per month per site.

c. The format for the COM cost/benefit analysis was initially developed by the COMPACS Group and subsequently coordinated with the proponent of AR 11-28, "Economic Analysis and Program Evaluation for Resource Management." Subject to the inclusion of several minor changes in format, the Directorate of Cost Analysis, Office of the Comptroller, Army, concurred in the methodology contained in the COM cost/benefit analysis format developed by the COMPACS Group.

d. As indicated in paragraph 5a(2) above, the thresholds associated with a "New Start" proposal, as specified in AR 235-5, would not be surpassed. Thus, the provisions of that AR would not be applicable. Normally only the cost/benefit analysis for an installation surpassing the specified threshold would be forwarded to the US Army Audit Agency for review and the preparation of a report of audit. However, to insure that the COM cost/benefit analysis of each installation was reviewed by an independent agency, the appropriate USAAA personnel were requested to analyze each, although none exceeded the specified thresholds. Recognizing the time constraint within which the COMPACS Group was working, the USAAA agreed to audit each COM cost/benefit analysis and detailed several members to the COMPACS Group for the aforementioned purpose effective 15 March 1976.

e. However, the COMPACS-SAG IV provided new guidance and direction concerning the placement of reports into production categories. Since the CBA was started on the assumption that the compromise (i.e., the recommended and optional) report production categories would be used as the base for cost analysis, work on the CBA and USAAA's audit thereof had to be stopped until this matter was resolved.

f. As a result of a visit to two of the test sites by personnel of COMPACS and representatives of the proponents, as elaborated upon in paragraph 2d above, all reports were placed into one of three production categories - mandatory, recommended, or other. This action enabled the preparation of a revised CBA for each installation (Annex O), and for the review by the USAAA to be resumed. Accordingly, a repre-

sentative of the USAAA again worked with the COMPACS Group from 7 June to 18 June. An exit interview was held on 14 July which culminated in the issuance of Audit Report EC 76 - 516 on 16 July 1976. In essence, the report (attached at Annex P) stated that, based upon the USAAA review, the methodology used by the COMPACS Group in the preparation of the CBAs appeared reasonable and complete, and that, secondly, the computations shown on the CBAs were reasonably accurate and sufficient to support economic decisions concerning BASOPS-COM.

6. COM PRODUCTION MODES (IN-HOUSE OR CONTRACT).

a. At the IPR, efforts associated with the identification of COM vendors capable of supporting BASOPS installations, the procurement of equipment, establishing sites, and the training of production and user personnel were addressed.

(1) COMPACS performed an extensive market survey of BASOPS locations to identify those for service contract and in-house production modes. The survey involved contacting representatives of the micrographics industry, numerous vendors, other government agencies, MACOM representatives, installation points of contact, and national and local service contractors who were requested to supply a list of their service locations and prices. MACOM coordinators and points of contact verified the survey, and it was coordinated with TAG's Microforms Management Branch, the National Micrographics Association, and other government agencies, including the Army Materiel Development and Readiness Command. As a result, 27 locations were identified that could be contract supported within a three-hour turn-around time from service centers located within a radius generally not exceeding forty miles from the installation. Fifteen sites were identified that could not be supported by a service center due to their remote location or the lack of a service center.

(2) Subsequent to identifying the sites that could be designated as in-house or contract supported, the MACOMs were contacted informally and requested to provide preliminary information concerning the sequential order in which BASOPS-COM would be extended to installations under their command. COMPACS deliberately delayed developing a chronological extension schedule due to the lack of data concerning the availability of standard COM software, the availability of equipment and travel funds, and vendor delivery schedules for COM production hardware as well as readers and reader-printers. It was pointed out that action to staff a proposed chronological extension schedule with the MACOMs would be taken upon resolution of several of the aforementioned factors.

(3) A draft plan of the time-phased actions required to bring additional installations under BASOPS-COM in each mode was discussed. Both the in-house and service contract plans would require a site visit, establishment of an installation task force, software and hardware installation, optional report selection, training, and an after-action inspection. It was stated that a visit to in-house installations should be made by members of an implementation team three months prior to formal BASOPS-COM extension, and forty-five days in the case of service bureau sites. The purposes of the visit would be to conduct an inspection of the area into which production equipment would be installed in an in-house environment; to work with the installation's task force (which should include representatives from the MISO, the functional systems operating at the installation, the Microforms Management Officer, and the vendor concerned); and to conduct the initial orientations on COM. Upon installation of the COM hardware in an in-house environment, the vendor would train the production personnel.

(4) After the installation of the CSC report selection software and the titling and indexing software from the vendor at the contract sites (titling and indexing software will be delivered with the COM equipment at the in-house sites), the selection of the optional reports by the local functional representatives, and identification of the report stacking and distribution requirements would ensue. The foregoing would be followed by the installation of the user equipment, to include the training of users on readers and reader-printers. It was emphasized that such training would have to be joint in nature and could be best conducted in an on-the-job environment. Prior to declaring the site operational, a pre-production test would be conducted. At that point, the POC would be responsible and the implementation team would conduct an after-action inspection approximately four weeks later to follow up on user acceptance and vendor reliability.

b. Shortly after the IPR, the COMPACS Group determined which installations, at that time, would be designated as in-house or service contract sites and began developing the BASOPS-COM extension schedule. Numerous factors had a bearing on the preparation of the schedule, to include the availability of standard COM software, the availability of funds, the procurement cycle for both production and user equipment, and the time required to "bringup" a site operationally. Of these factors, the first was discussed in paragraph 4, and the second will be discussed in paragraph 7. Thus, only the latter two will be discussed in this paragraph.

(1) Based on anticipated approval of the Study Group's recommendations on 30 June 1976, the COM specifications would be delivered to GSA about 15 September. During the interim, the required environmental testing would be conducted by the Computer Systems Command. Subsequently, there would be a prototype at Forts Carson and Lewis, to insure that the software would function in both an in-house and service contract environment. Upon receipt of the BASOPS-COM specifications (Annex Q), GSA would issue a Request for Proposal (RFP) and allow interested vendors to submit their proposals within a thirty to forty-five day period. GSA would require an additional thirty-to forty-five days to evaluate the proposals and negotiate the contracts with the vendors. As indicated, the foregoing actions would take approximately three months; thus, it would appear that actual award of the contracts could be made on or about 15 December.

(2) In the development of the BASOPS-COM extension schedule, consideration had to be given to the lead time required by the vendor(s) awarded the contracts to deliver the production and user equipment, the number of in-house and service bureau sites that could be "broughtup" to an operational status per month, and the sequential order in which BASOPS-COM would be extended to those installations. Since the COMPACS Group recognized that there would be little difficulty encountered in formally extending BASOPS-COM to the prototype test sites, other than for a possible requirement to change vendors and to provide a small number of additional readers, it proposed the formal extension of BASOPS-COM to these sites in January 1977. Likewise, little difficulty was envisioned in formally extending BASOPS-COM to those installations which had employed interim-COM, other than a possible need to change the service contract vendor and, again, obtain additional user equipment - primarily readers. Thus, the Group programmed the formal extension of BASOPS-COM to these sites starting in February 1977. On the premise that vendors require approximately sixty days to deliver equipment to the initial sites selected for extension, 1 March appeared to be a realistic date for the extension of BASOPS-COM to other than the prototype test sites and those installations which opted to institute Interim-COM. With respect to the number of sites to which BASOPS-COM could be extended per month, it was believed that one in-house site and two service contract sites could be broughtup per month. Accordingly, based on informal contact with MACOM coordinators, COMPACS prepared and staffed correspondence with the MACOMs and sought their concurrence in the proposed BASOPS-COM extension schedule. The MACOMs subsequently concurred with the proposed extension schedule, subject to minor changes, and recognized that the designated mode could change based upon the opening or the

closure of a service bureau capable of supporting a particular installation. The proposed extension schedule was presented to the SAG, whose membership agreed to the sequential order of extending BASOPS-COM among the installations, while cognizant of the possibility of change as discussed previously. The agreed upon BASOP-COM extension schedule is at Annex R.

(3) Subsequent to the SAG, several actions occurred which had a bearing on the extension schedule presented to its members. First, two installations were granted approval to implement interim COM with an exception to the service bureau provision; thus, they were authorized to implement interim-COM on an in-house basis. COMPACS deemed it appropriate to extend BASOPS-COM formally to these two interim sites separately from those sites operational under interim-COM on a service bureau basis. Secondly, the CSC decision, discussed in paragraph 4i, to develop the software contractually delayed BASOPS-COM extension by sixty to ninety days. Lastly, several COM service bureaus which had been destined to support particular installations, closed their operation, a possibility recognized and discussed in the preceding paragraph. The foregoing actions had the effect of delaying formal extension to the prototype test sites until April 1977; to the interim sites operating in a service bureau environment until May 1977; and to the remaining sites, to include the two approved interim sites operating on an in-house basis, until June 1977. The revised proposed BASOPS-COM extension schedule, which would extend BASOPS-COM at the rate of one in-house and two service contract sites per month, is at Inclosure 2 to Annex R. It is emphasized that, obviously, should service bureaus open or close, or additional installations be approved for interim COM on an in-house or service bureau basis, the sequential order of BASOPS-COM extension and the current mix of 18 in-house and 24 service bureaus could be influenced significantly.

c. With respect to the time-phased plans for the implementation of BASOPS-COM extension, the Group acted to refine certain portions thereof. The refinements consisted primarily of modifying the degree of HQDA participation, increasing the extent of MACOM participation, and improving the alignment of the varied actions discussed in paragraph 6. The time-phased implementation plans for both in-house and contract service sites were then staffed with the HQDA proponents and the MACOMs. At the time of the SAG, it was reported to the membership that the MACOMs and HQDA proponents concurred with the time-phased plans for the implementation of BASOPS-COM, and that the

several modifications suggested by them had been incorporated into each plan. The agreed upon time-phased implementation plans for an in-house and service bureau mode are attached at Annex S.

7. FUNDING.

a. During the IPR, note was made of the fact that a DOD Program Budget Decision (PBD) had disallowed the identified, but unfinanced, BASOPS-COM implementation funding requirements. It was stressed that the critical monetary aspect of implementation would be associated with the requirement to purchase user and peripheral equipment, the current estimate of which was \$3.5 million to outfit the remaining BASOPS installations. Two possible alternatives of central funding were addressed. These included funding for the purchase of user equipment only, at a cost of \$80K per installation (400 readers per, at \$200 each), or funding both the purchase of the user equipment, as indicated, as well as the operating cost of COM at a recurring average cost of \$2.5K per month or \$110K per year per installation. Another alternative envisioned total installation funding, which was assumed to be possible by virtue of the fact that some installations started COM operations under interim authority.

b. Subsequent to the IPR and advisement that a PBD disallowed the BASOPS-COM funding requirements for implementation, therefore requiring the development of alternative sources of funding, the Comptroller of the Army announced that \$4.5 million had been reprogrammed and would be made available for the Army Micrographics Program in FY 77. Thus, based on a decision to continue funding the four prototype test sites from 1 October 1976, the cost of funding the test sites in FY 77 was programmed to be \$152,400. In accordance with the proposed extension schedule, \$254,000 would be required to fund the interim-COM sites from the date of BASOPS-COM extension to them - February 1977 - for the balance of the fiscal year. The costs of extending BASOPS-COM to non-test sites and those not on interim-COM, at the rate of one in-house and two service bureaus per month commencing in March, was projected to be \$1,202,600 for the fiscal year. Thus, for FY 77, \$1.6 million would be required for BASOPS-COM extension, at the conclusion of which 9 in-house and 21 service contract sites would be operational.

c. During FY 78 the requirement to continue funding the sites "broughtup" in the prior fiscal year would continue and was programmed to cost \$961,200. Continued adherence to the schedule would result in extension of BASOPS-COM to in-house sites to be completed in March 1978, and to the service contract sites in December 1977, at

a cost of \$924,600 for the fiscal year. Thus, the total cost for FY 78 was projected to be \$1.9 million. To continue the BASOPS-COM operation mode in FY 79 and out years, an estimated \$1.4 million would be required annually.

d. The Chairman of the SAC indicated that the funding requirement for either fiscal year would present no problem. Subsequently, a reexamination of the money projected to be available to the Army micro-graphics program in FY 77 indicated that it was possible to shift to FY 77 sufficient funds for BASOPS-COM to effect all equipment purchases needed for implementation. This shift would increase the FY 77 projection \$540,000 or the amount slated for use in FY 78 to purchase equipment for those sites not brought up in FY 77. Although changing both FY figures, the implementation total of \$3.5 million would not be changed except for a possible savings due to mass purchase and avoidance of price inflation due to early purchase.

e. Another result of the visit to two test sites on 10-14 May, discussed in paragraph 2d was the determination that the requirement for an average of 200 readers per installation (of which 65 had been projected for use in SAILS, 65 for SIDPERS, and 70 for STANFINS) should be adjusted upward due primarily to the increased user needs within the SIDPERS environment. Therefore, \$380,000 (50 readers for 38 installations at \$200 each) was added to the FY 78 funding requirement, thus increasing the total implementation requirement to \$3,874,800. This, then, would provide for an average of 115 readers for SIDPERS.

f. The foregoing visit also confirmed the Group's previous determination that at an average BASOPS installation where SAILS, SIDPERS, and STANFINS are operational, five reader-printers are required. The distribution of the reader-printers should be: one for the installation headquarters, one for the MISO's area, and one in each sub-system environment.

g. Subsequently the FY 77-78 COBE was revised as a consequence of the milestone slippage resulting from the USACSC decision, discussed in paragraph 4i, to develop required software on a contractual rather than an in-house basis. Therefore, as of 9 July 1976, the BASOPS-COM implementation funding requirement was projected to be:

(1) FY 77: \$152,400 to fund the continued operation of the test sites - their formal conversion to BASOPS-COM projected to occur in April 1977. In accordance with the revised extension schedule,

\$222,500 would be required to fund the five interim-COM sites from the date of extension to them - May 1977 - for the balance of the fiscal year. Extension to other sites, at the rate of one in-house and two service bureaus per month commencing in June 1977, was projected to be \$614,000 for the fiscal year. Purchase of equipment in FY 77 for sites to be "broughtup" in FY 78 - to include 200 readers for each - would add \$945,000. Thus, for FY 77 \$1,933,900 would be required for BASOPS-COM extension, at the conclusion of which 6 in-house and 15 service contract sites would be operational.

(2) FY 78: During FY 78, \$666,000 would be required to continue funding those sites "broughtup" in FY 77. Extension (at the rate of one in-house and two service bureau sites per month until Feb 78, and then at the rate of two in-house sites per month) to the remaining sites would require \$586,200. To meet the requirement for an additional 50 readers per site, \$380,000 would be added to the FY 78 requirement. Thus, the total for FY 78 is projected to be just over \$1.63 million, and the total for both years \$3,566,100. The estimated cost to continue operation in out years (\$1.4 million) will not change as a result of implementation slippage. However, it would cost \$2.1 million to produce the same amount of material in paper. Therefore, BASOPS-COM is projected to save no less than one-third, or \$700,000 per year. For funding summary, see Annex T.

h. It is therefore planned that HQDA (TAGCEN) should fund centrally the implementation and operations of BASOPS-COM during FYs 1977 and 1978 only. This would provide time and opportunity for MACOMs affected to adjust programs for FY 1979 and beyond, by substituting lower BASOPS-COM operating costs for higher ADP paper costs in Command Operating Budgets.

8. FOURTH SAG MEETING. In summary, the purposes of the 26 Mar 76 meeting was to update the membership on COMPACS activity since the previous meeting, to provide the members with an opportunity to furnish guidance to the Group, and to obtain the SAG's conceptual approval of BASOPS-COM as envisioned by the Study Group. As mentioned, the SAG was advised of the efforts made by the Group to select BASOPS reports for conversion to COM and to develop a BASOPS-COM extension schedule. Additionally, the SAG was advised of actions taken with respect to the funding of BASOPS-COM, arrangements made for the US Army Audit Agency to review the Cost Benefit Analysis, and those with various offices of GSA regarding procurement. The SAG expressed satisfaction with the progress attained by COMPACS and concurred in the concept of BASOPS-COM extension/ implementation as envisioned by

the Study Group. However, as mentioned in paragraph 2, the SAG believed that a more definitive categorization than "recommended" and "optional" was not only feasible and practical, but necessary. Accordingly, the SAG directed the Study Group to re-examine that area in conjunction with the proponent of each sub-system, in an effort to designate reports which would be mandatorily produced in COM and those which could be produced in COM. Inherent in the SAG's guidance was the implicit recognition that there would undoubtedly be reports that could not be produced in COM by virtue of a requirement for annotation or a necessity to forward a report to an individual, command, or agency that did not have the requisite viewing equipment.

SECTION IX - FINDINGS/CONCLUSIONS

1. Computer output microfiche is acceptable as an output medium for approximately 80% of the reports within the BASOPS sub-systems. Users indicated a desire for additional BASOPS reports in microfiche mode as usage increased.
2. Both the in-house and service contract production environments for BASOPS-COM were found to be satisfactory, and both these environments satisfied turn-around requirements. However, selection of the production environment is dependent upon the availability of a service contractor and/or economic considerations.
3. Stacking of BASOPS reports, which includes the placement of more than one report on a single or sequential group of microfiche, is often feasible, highly desirable, and more economical as opposed to placing each report on a separate microfiche. As a result, this option was included in the design of BASOPS-COM software.
4. Standardized indexing and titling, which involves the fixed placement of particular data elements in the title or header area, are feasible and desired by users. As a result, this standard is included in the BASOPS-COM software.
5. There was no substantial difference with respect to production, maintenance, or operational effectiveness between the use of a separate COM recorder and processor (such as was used at Fort Huachuca) or a combined recorder/processor (such as was used at Fort Carson). Therefore, the procurement specifications will permit contractors to offer either type of equipment.
6. At an average BASOPS installation where SAILS, SIDPERS, and STANFINS are operational, approximately 250 viewers and five viewer-printers are required.
7. There is currently no viewer which will satisfy all user requirements fully. Therefore, a variety of viewers will be required.
8. Commercially available, "off-the-shelf" COM production and peripheral equipment can support BASOPS-COM requirements.
9. Procurement of COM production equipment (recorders, processors, and duplicators) must be obtained - in accordance with the Federal Property Management Regulations (FPMR) - by the General Services Administration (GSA), since the maximum order limit (MOL) of one will be exceeded.

10. Procurement of peripheral equipment - i.e., viewers, viewer-printers, densitometers, film cleaners, etc. - must be obtained, in accordance with the FPMR, by GSA since the MOL (either unit quantity or dollar value) for these items will be exceeded.
11. In accordance with the FPMR, GSA will negotiate all contract services.
12. In that BASOPS spool tapes require a second pass on the host computer, a mini frontend COM recorder is not required.
13. The second pass on the host computer requires additional computer run time. This time, however, to include that required to print the reports not selected for COM, is less than the total time to print all reports.
14. Users at Fort Huachuca expressed greater satisfaction with duplicate microfiche after conversion from vesicular to diazo film.
15. The effective reduction ratio of 48X satisfies user requirements for reports on microfiche, so should be the BASOPS-COM standard.
16. A BASOPS-COM Implementation Group will be required to oversee extension and implementation, and to continue liaison with CSC, the MACOM coordinators, proponents of the BASOPS sub-systems, and the MISO and functional personnel at each installation.
17. No additional personnel spaces nor any requirement for less personnel spaces were identified in either in-house or service bureau environments.
18. During the test, no major impact to the installation management structure was identified. Therefore, no change or impact is anticipated as a result of BASOPS-COM extension.
19. No micropublishing (250+ copies) requirement, as defined in the Joint Committee on Printing regulations, was identified for SAILS, SIDPERS, or STANFINS.
20. The implementation and extension of BASOPS-COM will not constitute a "New Start" under the provisions of AR 235-5, by virtue of the fact that the thresholds of \$100,000 in additional annual operating costs or \$50,000 in additional capital investments at any one installation will not be surpassed.

21. The Cost Benefit Analysis (CBA) format developed by COMPACS was concurred in by the Office of the Comptroller of the Army. Additionally, the USAAA found the methodology to be reasonably accurate and sufficient to support the necessary economic decisions regarding the extension of BASOPS-COM.

22. HQDA (TAGCEN) should provide all BASOPS-COM implementation and operations funding through FY 78. MACOMs and installations should adjust budgets to fund BASOPS-COM beginning in FY 79.

23. The production of BASOPS reports (SAILS, SIDPERS, STANFINS) in the microfiche mode is cost effective, and when implemented at all installations, will result in a savings of \$700,000 per year starting in FY 79. It is concluded that further savings will be realized as other systems are converted to COM.

SECTION X - RECOMMENDATIONS

It is recommended that:

a. COM be formally extended to all BASOPS installations in accordance with the standards and schedules contained herein.

b. The titling and indexing formats, COM software, and equipment specifications contained herein be approved as BASOPS-COM standards.

c. The BASOPS-COM procurement specifications be forwarded to the General Services Administration upon completion of a successful prototype.

Charles T. Search

20 Incl
as

CHARLES T. SEARCH
Colonel, GS
Project Manager, BASOPS-COM

ANNEX A, CSM with Amendments

	<u>Page</u>
Inclosure 1 - CSM 74-340-108, dated 6 Dec 74	A-2
Inclosure 2 - CSM 75-340-31, dated 28 May 75	A-13
Inclosure 3 - CSM 75-310-100, dated 31 Dec 75	A-14
Inclosure 4 - CSM 76-310-30, dated 30 Jun 76	A-16

CHIEF OF STAFF

Memorandum

U. S. ARMY

DISTR A EXPIRES 31 December 1975

CSM 74-340-108

DATE 6 December 1974

FILE CS 310.1 (6 Dec 74)

ACTION OFFICER/EXT

MAJ Beim/31974

SUBJECT: Computer Output Microforms Program
and Concept Study (COMPACS)

MEMORANDUM FOR: HEADS OF ARMY STAFF AGENCIES

1. PURPOSE. This memorandum provides for the conduct of a program and systems development study for converting Base Operating Information System (BASOPS) computer output to microforms (COM) at Army installations, assigns functional responsibilities, and describes procedures to be followed. Study category 6.

2. REFERENCES.

a. CSM 74-18-98, dated 8 November 1974, subject: User Requirements for ADP Products.

b. CSR 340-2, Document and Information Miniaturization, 7 May 1973.

c. AR 5-5, The Army Study System, 15 February 1971.

d. AR 340-22, The Army Microforms Program, 12 November 1973.

e. DA Pamphlet 18-10-4, Information Processing Systems Exchange, December 1973.

f. Letter, DAAG-AMS, HQDA, dated 17 June 1974, subject: Microform System for Converting BASOPS Output to Microform Using COM(Computer Output Microfilm).

3. STUDY SPONSOR. The Adjutant General.

4. OCSA STUDY MONITOR: Management Information Systems Directorate.

5. TERMS OF REFERENCE.

a. Problem. A need exists at Army BASOPS installations to convert computer-generated hard-copy information to microform because of rising costs, paper shortages, and the speed limitations of the printers in a computer configuration. A solution must be devised which will resolve these problems. Additionally, there are disadvantages of physical size, volume, space, distribution, and retrieval inherent in handling hard-copy paper output which must be addressed.

b. Objectives.

(1) Provide early relief to difficulties cited above through implementation of Interim BASOPS-COM MICRODIS.

(2) Implement a BASOPS-COM MICRODIS at three installations and, using these as prototype sites, validate those ADPE outputs capable of conversion to microform; determine equipment needed to satisfy user requirements; determine cost/benefits of a BASOPS-COM MICRODIS; and develop a plan for implementation of standard BASOPS-COM MICRODIS to all BASOPS installations.

c. Limits.

(1) This program and systems development study will be limited to the consideration of standard BASOPS computer-generated reports (e.g., SIDPERS, STANFINS, SAILS). Computer-generated reports identified as potential micropublishing applications will be noted and included in the final report.

(2) No attempt will be made to analyze the reports as to their composition and necessity, or the computer systems which generate them.

(3) No attempt will be made to revise The Army Functional Files System (TAFFS) requirements for retention and disposal of the reports under consideration.

(4) Unless a demonstrable need can be shown, the project will be limited to investigating currently available equipment and services.

(5) The reduction ratio of primary consideration will be 48X for all microforms. Should the need for a lesser reduction ratio be ascertained through operational experience, consideration will be given to the alternate reduction ratio of 24X.

(6) Where feasible, microformats will be designed in accordance with DOD/National Microfilm Association (NMA) standards and guidelines.

(7) Microfiche will be used in preference to other microforms unless otherwise determined through operational testing.

d. Scope.

(1) All installations of TRADOC, FORSCOM, HSC, MDW, and USACC utilizing BASOPS will be included (Incl 1).

(2) Requirements of present functional proponent Army Staff agencies will be considered.

(3) Other Army Staff agencies may have a functional interest in COMPACS prior to its completion and their requirements will be considered.

(4) All user requirements for reports handling, storage, retrieval, and display will be considered.

(5) All equipment necessary to implement the BASOPS-COM MICRODIS will be considered and evaluated.

e. Time frame. Project will begin with interim systems during FY 1975. Modifications of interim systems and proliferation of BASOPS-COM MICRODIS will begin in FY 1976.

f. Assumptions.

(1) Paper costs and shortages will continue to increase.

(2) Requirements to produce BASOPS-type reports, using computers, will continue through the next decade.

(3) Costs of filing, storage, and retrieval will not decrease.

(4) COM is a more economical method of producing and handling large volume, ADP-generated information.

(5) The number of reports generated will not significantly decrease.

(6) All BASOPS systems design will continue to be predicated on a core limitation of 128K.

g. Essential Elements of Analysis (EEA).

(1) Obtain or generate data as a basis for determining the configuration of a BASOPS-COM Microform Document/Information System (MICRODIS).

(2) Determine which computer-generated BASOPS reports can be converted to microforms.

(3) Address the human requirements for users of reports in microform mode in order to design acceptable handling, storage and retrieval systems, and techniques.

(4) Examine, evaluate, and determine what currently available microform equipment will best meet the needs of Army BASOPS installations.

(5) Identify and consider the software, data communications, transmission, and other requirements of BASOPS as they relate to COM.

(6) Determine the alternative ways and means of acquiring COM capability at BASOPS installations.

(7) Determine those cost-effective baselines upon which decisions can be made regarding implementation of COM.

(8) Identify and analyze significant factors of BASOPS-COM implementation which will affect departmental budgeting and funding decisions.

(9) Design the BASOPS-COM MICRODIS sufficiently flexible to incorporate expansion and changes of BASOPS and new developments in microform technology.

(10) Address and resolve integral problems that may be discovered in the course of analysis and design. Areas identified during the course of the study which are related and appear to warrant further review, but which do not fall within the purview of this directive, will be noted and included in the final report.

h. Models. To be developed as required.

i. Environment. The microform system adopted must be capable of operation in a wartime or peacetime environment.

6. SUPPORT AND RESOURCE REQUIREMENTS.

a. The Adjutant General will--

(1) Have overall responsibility for the conduct of this study.

(2) Issue guidance for interim BASOPS-COM MICRODIS concurrent with this study directive.

(3) Provide the Study Director (grade 06); a management analyst, grade 04/03 or GS-13/12/11, with skills in management or systems analysis; a COM specialist, grade 04/03 or GS-13/12; and a secretary-typist, grade GS-7/6/5 to the COMPACS Study Group.

(4) Provide office space, furniture, equipment, and other administrative support for the study group.

(5) Request, as necessary, computer time/support from participants in this study.

b. DMIS, OCSA (to include subordinate elements of CSSEA/CSC/USAMSSA) will --

(1) Provide one computer systems analyst, grade 04/03 or GS-13/12/11, to the COMPACS Study Group.

(2) Develop computer programs for data collection and evaluation at the request of the Study Director.

(3) Develop, as requested by the Study Director, BASOPS-COM equipment/services utilization program, and determine and develop required software for reformatting of tapes to COM.

c. DCSLOG will provide one logistics management analyst, grade 04/03 or GS-13/12, with skills in logistics management or systems analysis to the COMPACS Study Group.

d. Commanding Generals, TRADOC, FORSCOM, HSC, MDW, and USACC as separately tasked by HQDA letter will --

(1) Designate a COMPACS coordinator at each MACOM headquarters.

(2) Direct that a point-of-contact (POC) be provided at each BASOPS installation and that sufficient personnel be designated to assist the POC during data collection and evaluation effort.

(3) Be responsible for determining the availability of COM production, either in-house or through contract services, for each BASOPS installation. As a result of this determination, MACOMs will also identify the manpower requirements, contingency plans, and implementation schedule for each BASOPS installation.

(4) Disseminate COMPACS information provided by the Study Director to their respective installations; coordinate submission of interim systems requests IAW guidance provided by TAG; and assist the COMPACS Study Group in collecting all required data at all installations.

e. Commanding Generals, FORSCOM and TRADOC will provide one management analyst each, grade 04/03 or GS-13/12, with skills in management or systems analysis, as a full-time member of the COMPACS Study Group.

f. CG, FORSCOM will designate Fort Sam Houston and Fort Lewis as prototype test sites. The COMPACS Study Group will determine types of equipment, supplies, and services to be acquired. Equipment/services contract procurement will be obtained or modified locally.

g. CG, USACC will designate Fort Huachuca as a prototype test site for in-house COM. The COMPACS Study Group will determine

c. COMPACS Task Force. A COMPACS Task Force is established to achieve the objectives of this study.

d. Notification. Names of personnel selected will be provided to the Study Director (DAAG-AMS-C) NLT seven days after the date of this directive. Personnel assigned to the Study Group will report to the Study Director NLT two weeks after the date of this directive. Personnel must have sufficient retainability for the duration of the study.

e. Control procedures.

(1) TAG is responsible for direction and support of the COMPACS Study Group.

(2) A COMPACS Study Advisory Group (SAG) is established to assist the study sponsor (TAG); review the project efforts at the end of each major task/phase and at other times as appropriate; and provide guidance to the Study Director. The SAG will consist of members from OCA; ODCSLOG; ODCSPER (MILPERCEN); MISD, OCSA; and a chairman from TAGO. ASA(FM) will be invited to provide an observer to the SAG.

(3) TAG will evaluate the study efforts of each phase and authorize initiation of each successive phase.

(4) TAG will review and recommend to the CSA a decision on the final systems proposal and implementation.

(5) MACOMs will be invited to send a representative to attend appropriate in-process review.

f. Action documents.

(1) Analysis of all data collections and evaluations (reports, users, market surveys, ADP programs, etc.).

(2) Contracts for services and equipment for tests.

(3) Microform test analysis and evaluation.

(4) Feasibility study on the consolidation of BASOPS-COM sites.

(5) Microform system, to include equipment, personnel, and concept of operation (if conversion to microforms is determined to be feasible).

(6) Time-phased plan for implementation (if conversion to microform is determined to be feasible).

types of equipment, supplies, and services to be acquired. Equipment/service contract procurement will be obtained or modified locally.

h. General Services Administration (GSA) will be requested by separate letter to provide a cost analyst, GS-13/12, with ADP cost experience, full-time for the study.

i. National Archives and Records Service (NARS) will be requested by separate letter to provide a management analyst, GS-13/12/11, with microform systems analysis and design skills, full-time for the study.

7. FUNDS.

a. An estimated \$132,000 will be required for equipment and services at the FORSCOM prototype sites, and an estimated \$72,000 at the USACC site. FY 75 funds will be provided by MACOMs required to acquire equipment, supplies, or services in support of the tests. FY 76 funds will be provided by TAG (TAGCEN).

b. Funds for any TDY to be performed by the COMPACS Study Group will be provided by TAG (TAGCEN). TDY or other costs incurred through assigning a member to the COMPACS Study Group (including overtime pay for civilian personnel) will be borne by the parent organization.

c. Funds for GSA and NARS personnel will be provided by TAG (TAGCEN).

d. MACOMs will provide funds for their COMPACS coordinators and POC, as required, in support of this study.

8. IDENTIFICATION OF REPORTS. Army Staff proponent agencies of standard BASOPS reports will identify reports which should or should not be candidates for microform conversion; and identify reports which require hard-copy paper print from microforms. Listings, IAW additional guidance from TAG, will be provided NLT four weeks after the date of this directive.

9. ADMINISTRATION.

a. Study title. Computer Output Microforms Program and Concept Study (COMPACS). MICRODIS NR 4002-US5C is assigned to this study and will be used on all correspondence related thereto.

b. Study schedule. A milestone chart is at inclosure 2. The study consists of five phases, with the final report/briefing due 57 weeks after the date of this directive.

c. COMPACS Task Force. A COMPACS Task Force is established to achieve the objectives of this study.

d. Notification. Names of personnel selected will be provided to the Study Director (DAAG-AMS-C) NLT seven days after the date of this directive. Personnel assigned to the Study Group will report to the Study Director NLT two weeks after the date of this directive. Personnel must have sufficient retainability for the duration of the study.

e. Control procedures.

(1) TAG is responsible for direction and support of the COMPACS Study Group.

(2) A COMPACS Study Advisory Group (SAG) is established to assist the study sponsor (TAG); review the project efforts at the end of each major task/phase and at other times as appropriate; and provide guidance to the Study Director. The SAG will consist of members from OCA; ODCSLOG; ODCSPER (MILPERCEN); MISD, OCSA; and a chairman from TAGO. ASA(FM) will be invited to provide an observer to the SAG.

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(4) TAG will review and recommend to the CSA a decision on the final systems proposal and implementation.

(5) MACOMs will be invited to send a representative to attend appropriate in-process review.

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(2) Contracts for services and equipment for tests.

(3) Microform test analysis and evaluation.

(4) Feasibility study on the consolidation of BASOPS-COM sites.

(5) Microform system, to include equipment, personnel, and concept of operation (if conversion to microforms is determined to be feasible).

(6) Time-phased plan for implementation (if conversion to microform is determined to be feasible).

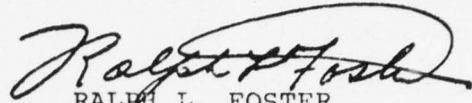
(7) MICRODIS proposal.

BY DIRECTION OF THE CHIEF OF STAFF:

2 incl
as

Copy furnished:
ASA(FM)
DMIS, OCSA

Suspense:
As stated in para 8 and 9d



RALPH L. FOSTER
Lieutenant General, GS
Director of the Army Staff

TRADOC INSTALLATIONS

INSTALLATION

FORT BELVOIR, VA
FORT BENNING, GA
FORT BLISS, TX
FORT DIX, NJ
FORT EUSTIS, VA
FORT GORDON, GA
FORT BENJAMIN HARRISON, IN
FORT JACKSON, SC
FORT KNOX, KY
FORT LEAVENWORTH, KS
FORT LEE, VA
FORT MCCLELLAN, AL
FORT MONROE, VA
FORT ORD, CA
FORT POLK, LA
FORT RUCKER, AL
FORT SILL, OK
FORT LEONARD WOOD, MO

NEAR

WASHINGTON, DC
COLUMBUS, GA
EL PASO, TX
TRENTON, NJ
NEWPORT NEWS, VA
AUGUSTA, GA
INDIANAPOLIS, IN
COLUMBIA, SC
LOUISVILLE, KY
KANSAS CITY, KS
PETERSBURG, VA
ANNISTON, AL
HAMPTON, VA
MONTEREY, CA
ALEXANDRIA, LA
DOTHAN, AL
LAWTON, OK
SPRINGFIELD, MO

FORSCOM INSTALLATIONS

FORT BRAGG, NC
FORT CAMPBELL, KY
FORT CARSON, CO
FORT DEVENS, MA

FORT HOOD, TX

IGMAR, PA
FORT LEWIS, WA
CAMP MCCOY, WI
FORT MCPHERSON, GA
FORT GEORGE G. MEADE, MD
PRESIDIO OF SAN FRANCISCO, CA
FORT RILEY, KS
FORT SAM HOUSTON, TX
FORT SHERIDAN, IL
FORT STEWART, GA
FORT RICHARDSON, AK
FORT CLAYTON, PANAMA
FORT SHAFTER, HAWAII
HOMESTEAD AFB, FL

FAYETTEVILLE, NC
CLARKSVILLE, TN
COLORADO SPRINGS, CO
BOSTON, MA
WORCESTER, MA
KILEEN, TX
TEMPLE, TX
HARRISBURG, PA
SEATTLE, WA
LA CROSSE, WI
ATLANTA, GA
BALTIMORE, MD
SAN FRANCISCO, CA
MANHATTAN, KS
SAN ANTONIO, TX
CHICAGO, IL
SAVANNAH, GA
ANCHORAGE, AK
BALBOA, CZ
HONOLULU, HAWAII
MIAMI, FL

HEALTH SERVICES COMMAND

INSTALLATION

NEAR

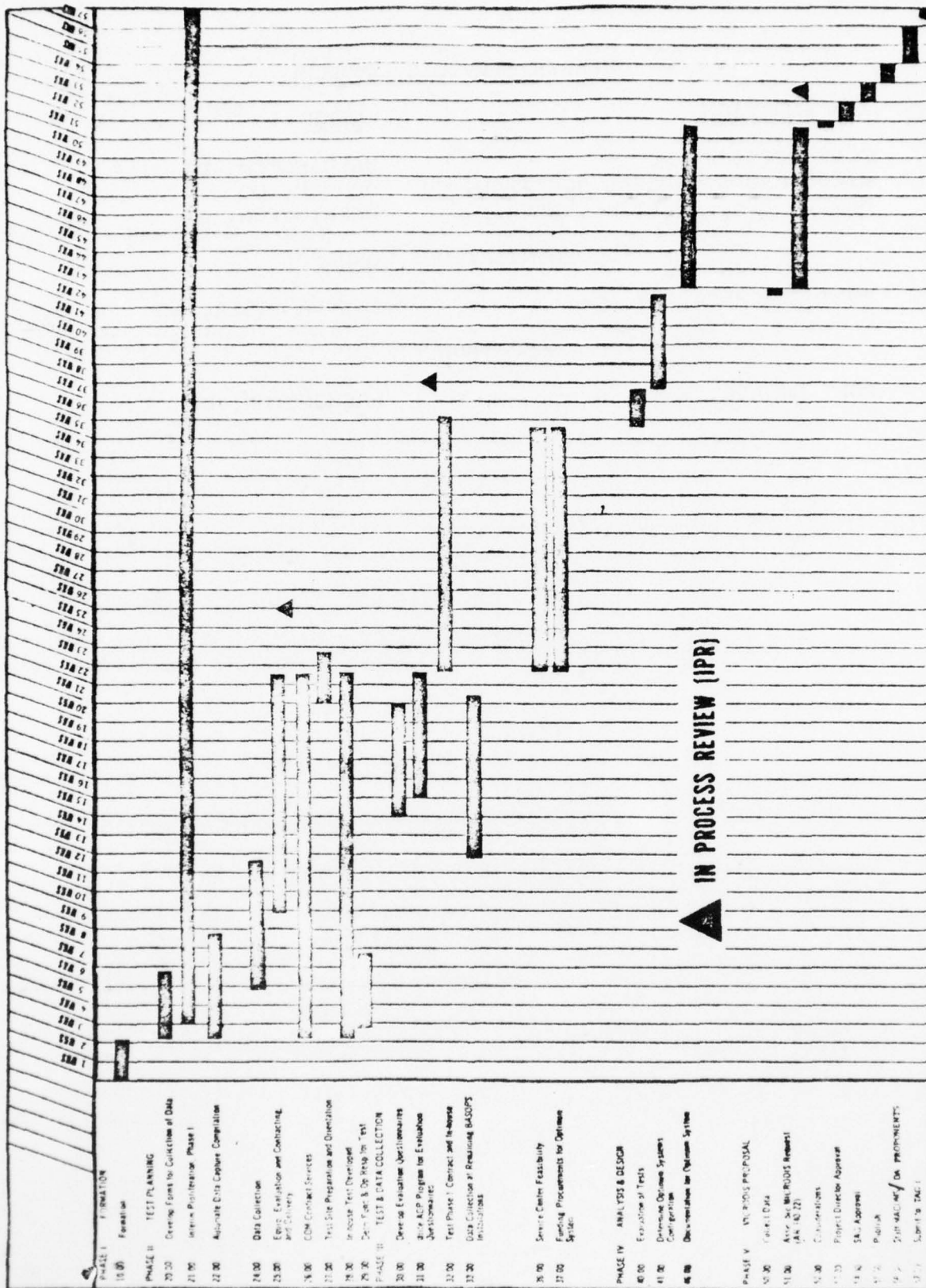
FORT DETRICK, MD	WASHINGTON, DC
FITZSIMMONS GENERAL HOSPITAL, CO	DENVER, CO
WALTER REED HOSPITAL, WASH, DC	WASHINGTON, DC

COMMUNICATIONS COMMAND

FORT HUACHUCA, AZ	SIERRA VISTA, AZ
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MDW

FORT MCNAIR, WASH, DC	WASHINGTON, DC
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CHIEF OF STAFF

Memorandum

U. S. ARMY

DISTR A EXPIRES 31 December 1975

CSM 75-340-31

DATE 28 May 1975

FILE CS 310.1 (28 May 75)

ACTION OFFICER/EXT

CPT D.S. Clements/cjc/30622

SUBJECT: Computer Output Microforms Program and
Concept Study (COMPACS)


MEMORANDUM FOR: HEADS OF ARMY STAFF AGENCIES

CSM 74-340-108, subject as above, 6 December 1974, is changed as follows:

Page 5, paragraph 6f.

f. (Superseded) Commanding General, FORSCOM will designate Forts Carson, Lewis, and Sam Houston as prototype test sites. The COMPACS Group will determine types of equipment, supplies, and services to be acquired. Equipment/services contract procurement will be obtained or modified locally.

BY DIRECTION OF THE CHIEF OF STAFF:


RALPH L. FOSTER
Lieutenant General, GS
Director of the Army Staff

Copy furnished:
ASA(FM)
DMIS, OCSA

AM

CHIEF OF STAFF
Memorandum
U. S. ARMY

DISTR A EXPIRES 31 December 1976

CSM 75-310-100

DATE 31 December 1975

FILE CS 312 (31 Dec 75)

ACTION OFFICER/EXT
Mrs. Smith/53560/pd

SUBJECT: Extension of CSMs

MEMORANDUM FOR: HEADS OF ARMY STAFF AGENCIES

The CSMs listed below will be effective until the dates specified.

a. Effective until 30 April 1976.

(S) CSM 74-525-106, dated 4 December 1974, subject: Army Staff Responsibilities for Middle East War Analysis (U).

b. Effective until 30 June 1976.

(1) CSM 74-5-107, dated 5 December 1974, subject: Army Intelligence Organization and Stationing Study.

(2) CSM 74-340-108, dated 6 December 1974, subject: Computer Output Microforms Program and Concept Study (COMPACS), as amended by CSM 75-340-31, dated 28 May 1975, subject: Computer Output Microforms Program and Concept Study (COMPACS).

c. Effective until 31 December 1976.

(1) CSM 74-15-49, dated 20 May 1974, subject: Army Staff Responsibilities for Implementation of Army Materiel Acquisition Review Committee (AMARC) Recommendations, as amended by CSM 74-15-53, dated 5 June 1974, subject: Army Staff Responsibilities for Implementation of Army Materiel Acquisition Review Committee (AMARC) Recommendations, and as extended by CSM 75-310-34, dated 2 June 1975, subject: Extension of CSMs.

(2) CSM 74-210-109, dated 10 December 1974, subject: Implementation of Realignment Actions Announced on 22 November 1974 (CONCISE).

(3) CSM 74-18-114, dated 26 December 1974, subject: Weapon System Operating and Support Costs.

SUBJECT: Extension of CSMs

(4) CSM 74-15-116, dated 30 December 1974, subject: Support Activities Staffing Review (SASTAR).

BY DIRECTION OF THE CHIEF OF STAFF:

Fulton
WILLIAM B. FULTON
Lieutenant General, GS
Director of the Army Staff

Copies furnished:
ASA(FM)
ASA(I&L)
DMIS, OCSA

TAG EXEC OFF		
DIST	ACT	INFO
DAAG-LX		1
DAAG-TCZC		1
DAAG-AM		①
DAAG-DD		
ARFCS		
DAAG-OOZ		1
DAAG-IOZD		
DAAG-MEZ		
DAAG-NZ		
DAAG-TCS		
DAAG-HPZ		
DAAG-PA		
DAAG-CA		
DAAG-NE		
DAAG-OM		
DAAG-DE		
DAAG-ED		
DAAG-MEZ		
DAAG-ACUZ		1

CHIEF OF STAFF

Memorandum

U. S. ARMY

DISTR A EXPIRES 30 June 1977

CSM 76-310- 30

DATE 30 Jun 76

FILE CS 312 (30 Jun 76)

ACTION OFFICER/EXT
Mrs. Smith/lk/53560

SUBJECT: Extension of CSMs

MEMORANDUM FOR: HEADS OF ARMY STAFF AGENCIES

The CSMs listed below will be effective until the dates specified.

a. Effective until 31 August 1976.

CSM 75-15-47, dated 8 July 1975, subject: 1975 Quadrennial Review of Military Compensation (QRMC).

b. Effective until 30 November 1976.

CSM 75-210-38, dated 12 June 1975, subject: Evaluation of Development and Logistics Center Studies and Related Realignment Actions.


c. Effective until 31 December 1976.

(1) CSM 75-15-36, dated 10 June 1975, subject: Army Customer Order Steering Committee.

(2) CSM 74-5-107, dated 5 December 1974, subject: Army Intelligence Organization and Stationing Study, as extended by CSM 75-310-100, dated 31 December 1975, subject: Extension of CSMs.

(3) CSM 74-340-108, dated 6 December 1974, subject: Computer Output Microforms Program and Concept Study (COMPACS), as amended by CSM 75-340-31, dated 28 May 1975, subject: Computer Output Microforms Program and Concept Study (COMPACS), and as extended by CSM 75-310-100, dated 31 December 1975, subject: Extension of CSMs.

BY DIRECTION OF THE CHIEF OF STAFF:



MARVIN D. FULLER
Major General, GS
Director of Management

Copy furnished:

ASA(FM)

ASA(I&L)

USofA

DMIS, OCSA

ANNEX B, HQDA Letters with Amendments

	<u>Page</u>
Inclosure 1 - HQDA Ltr 340-74-7, dated 6 Dec 74	B-2
Inclosure 2 - HQDA Ltr 340-75-8, dated 4 Jun 75	B-10
Inclosure 3 - HQDA Ltr 340-76-1, dated 15 Jan 76	B-11
Inclosure 4 - HQDA Ltr 340-76-5, dated 8 Jul 76	B-12



DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20314

DAAG-AMS-M (M) (9 Dec 74)

6 December 1974

Expires 6 December 1975

SUBJECT: Computer Output Microforms Program and Concept Study (COMPACS)

SEE DISTRIBUTION

1. PURPOSE. This directive provides for the conduct of a program and systems development study for converting Base Operating Information System (BASOPS) computer output to microforms (COM) at Army installations, assigns functional responsibilities, and describes procedures to be followed. Study category 6. Heads of Army Staff agencies cited in this letter have been directed by separate Chief of Staff Memorandum to perform functions indicated herein.

2. REFERENCES.

- a. AR 5-5.
- b. AR 340-22.
- c. DA Pamphlet 18-10-4.
- d. Letter, DAAG-AMS, HQDA, 14 Jun 74, Microform System for Converting BASOPS Output to Microform Using Computer Output Microfilm (COM).

3. STUDY SPONSOR. The Adjutant General.

4. OCSA STUDY MONITOR. Management Information Systems Directorate.

5. TERMS OF REFERENCE.

a. Problem. A need exists at Army BASOPS installations to convert computer generated hard copy information to microform because of rising costs, paper shortages, and the speed limitations of the printers in a computer configuration. A solution must be devised which will resolve these problems. Additionally, there are disadvantages of physical size, volume, space, distribution, and retrieval inherent in handling hard-copy paper output which must be addressed.

DAAG-AMS-M

SUBJECT: Computer Output Microforms Program and Systems Study (COMPACS)

b. Objectives.

(1) Provide early relief to difficulties cited above through implementation of Interim BASOPS-COM MICRODIS.

(2) Implement a BASOPS-COM MICRODIS at three installations and, using these as prototype sites, validate those ADPE outputs capable of conversion to microform; determine equipment needed to satisfy user requirements; determine cost/benefits of a BASOPS-COM MICRODIS; and develop a plan for implementation of standard BASOPS-COM MICRODIS to all BASOPS installations.

c. Limits.

(1) This program and systems development study will be limited to the consideration of standard BASOPS computer-generated reports (e.g., SIDPERS, STANFINS, SAILS). Computer-generated reports identified as potential micropublishing applications will be noted and included in the final report.

(2) No attempt will be made to analyze the reports as to their composition and necessity, or the computer systems which generate them.

(3) No attempt will be made to revise The Army Functional Files System (TAFFS) requirements for retention and disposal of the reports under consideration.

(4) Unless a demonstrable need can be shown, the project will be limited to investigating currently available equipment and services.

(5) The reduction ratio of primary consideration will be 48X for all microforms. Should the need for a lesser reduction ratio be ascertained through operational experience, consideration will be given to the alternate reduction ratio of 24X.

(6) Where feasible, microformats will be designed in accordance with DoD/ National Microfilm Association (NMA) standards and guidelines.

(7) Microfiche will be used in preference to other microforms unless otherwise determined through operational testing.

d. Scope.

(1) All installations of TRADOC, FORSCOM, HSC, MDW, and USACC utilizing BASOPS will be included (Incl 1).

(2) Requirements of present functional proponent Army Staff agencies will be considered.

SUBJECT: Computer Output Microforms Program and Concept Study (COMPACS)

(3) Other Army Staff agencies may have a functional interest in COMPACS prior to its completion and their requirements will be considered.

(4) All user requirements for reports handling, storage, retrieval, and display will be considered.

(5) All equipment necessary to implement the BASOPS-COM MICRODIS will be considered and evaluated.

e. Time frame. Project will begin with interim systems during FY 1975. Modifications of interim systems and proliferation of BASOPS-COM MICRODIS will begin in FY 1976.

f. Assumptions.

(1) Paper costs and shortages will continue to increase.

(2) Requirements to produce BASOPS-type reports, using computers, will continue through the next decade.

(3) Costs of filing, storage, and retrieval will not decrease.

(4) COM is a more economical method of producing and handling large-volume, ADP-generated information.

(5) The number of reports generated will not significantly decrease.

(6) All BASOPS systems design will continue to be predicated on a core limitation of 128K.

g. Essential elements of analysis (EEA).

(1) Obtain or generate data as a basis for determining the configuration of a BASOPS-COM Microform Document/Information System (MICRODIS).

(2) Determine which computer-generated BASOPS reports can be converted to microforms.

(3) Address the human requirements for users of reports in microform mode in order to design acceptable handling, storage and retrieval systems, and techniques.

(4) Examine, evaluate, and determine what currently available microform equipment will best meet the needs of Army BASOPS installations.

(5) Identify and consider the software, data communications, transmission, and other requirements of BASOPS as they relate to COM.

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SUBJECT: Computer Output Microforms Program and Concept Study (COMPACS)

(6) Determine the alternative ways and means of acquiring COM capability at BASOPS installations.

(7) Determine those cost-effective baselines upon which decisions can be made regarding implementation of COM.

(8) Identify and analyze significant factors of BASOPS-COM implementation which will affect departmental budgeting and funding decisions.

(9) Design the BASOPS-COM MICRODIS sufficiently flexible to incorporate expansion and changes of BASOPS and new developments in microform technology.

(10) Address and resolve integral problems that may be discovered in the course of analysis and design. Areas identified during the course of the study which are related and appear to warrant further review, but which do not fall within the purview of this directive, will be noted and included in the final report.

h. Models. To be developed as required.

i. Environment. The microform system adopted must be capable of operation in a wartime or peacetime environment.

6. SUPPORT AND RESOURCE REQUIREMENTS.

a. The Adjutant General will --

(1) Have overall responsibility for the conduct of this study.

(2) Issue guidance for interim BASOPS-COM MICRODIS concurrent with this study directive.

(3) Provide the Study Director (grade 06); a management analyst, grade 04/03 or GS-13/12/11, with skills in management or systems analysis; a COM specialist, grade 04/03 or GS-13/12; and a secretary-typist, grade GS-7/6/5, to the COMPACS Task Force.

(4) Provide office space, furniture, equipment, and other administrative support for the Task Force.

(5) Request, as necessary, computer time/support from any/all participants in this project.

b. DMIS OCSA (to include subordinate elements of CSEA/CSC/USAMSSA) will --

(1) Provide one computer systems analyst, grade 04/03 or GS-13/12/11 to the COMPACS Task Force.

6 December 1974

SUBJECT: Computer Output Microforms Program and Concept Study (COMPACS)

(2) Develop computer programs for data collection and evaluation at the request of the Study Director.

(3) Develop, as requested by the Study Director, BASOPS-COM equipment/services utilization program, and determine and develop required software for reformatting of tapes to COM.

c. DCSLOG will provide one logistics management analyst, grade 04/03 or GS-13/12, with skills in logistics management or systems analysis to the COMPASS Task Force.

d. Commanding Generals, TRADOC, FORSCOM, HSC, MDW and USACC will --

(1) Designate a COMPACS coordinator at each MACOM headquarters, NLT 15 days following the date of this directive.

(2) Direct, as requested by the Study Director, that a point-of-contact (POC) be provided at each BASOPS installation and that sufficient personnel be designated to assist the POC during data collection and evaluation effort.

(3) Be responsible for determining the availability of COM production, either in-house or through contract services, for each BASOPS installation. As a result of this determination, MACOMs will also identify the manpower requirements, contingency plans, and implementation schedule for each BASOPS installation.

(4) Disseminate COMPACS information provided by the Study Director to their respective installations; coordinate submission of interim systems requests IAW guidance provided by TAG; and assist the COMPACS Task Force in collecting all required data at all installations.

e. Commanding Generals, FORSCOM and TRADOC, will provide one management analyst each, grade 04/03 or GS-13/12, with skills in management or systems analysis, as a full-time member of the COMPACS Task Force.

f. CG, FORSCOM will designate Fort Sam Houston and Fort Lewis as prototype test sites. COMPACS Task Force will determine types of equipment, supplies, and services to be acquired. Equipment/services contract procurement will be obtained or modified locally.

g. CG, USACC will designate Fort Huachuca as a prototype test site for in-house COM. The COMPACS Task Force will determine types of equipment, supplies and services to be acquired. Equipment/service contract procurement will be obtained or modified locally.

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ADJUTANT GENERAL CENTER WASHINGTON D C
COMPUTER OUTPUT MICROFORMS PROGRAM AND CONCEPT STUDY (COMPACS) --ETC(U)
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DAAG-AMS-M

SUBJECT: Computer Output Microforms Program and Concept Study (COMPACS)

h. General Services Administration (GSA) will be requested by separate letter to provide a cost analyst, GS-13/12, with ADP cost experience, full-time for the study.

i. National Archives and Records Service (NARS) will be requested by separate letter to provide a management analyst, GS-13/12/11, with microform systems analysis and design skills, full-time for the study.

7. FUNDS.

a. An estimated \$132,000 will be required for equipment and services at the FORSCOM prototype sites, and an estimated \$72,000 at the USACC site. FY 75 funds will be provided by MACOMs required to acquire equipment, supplies, or services in support of the tests. FY 76 funds will be provided by TAG (TAGCEN).

b. Funds for any TDY to be performed by the COMPACS Task Force will be provided by TAG (TAGCEN). TDY or other costs incurred through assigning a member to the COMPACS Task Force (including overtime pay for civilian personnel will be borne by the parent organization.

c. Funds for GSA and NARS personnel will be provided by TAG (TAGCEN).

d. MACOMs will provide funds for their COMPACS coordinators and POC, as required, in support of this project.

8. IDENTIFICATION OF REPORTS. Army Staff proponent agencies of standard BASOPS reports will identify reports which should or should not be candidates for microform conversion; specify titling and indexing scheme of reports designated for conversion; and identify reports which require hard copy paper prints from microforms. Listings, IAW additional guidance from TAG, will be provided NLT 4 weeks after the date of this directive.

9. ADMINISTRATION.

a. Study title. Computer Output Microforms Program and Concept Study (COMPACS). MICRODIS NR 4002-US5C is assigned to this study and will be used on all correspondence related thereto.

b. Study schedule. A milestone chart is at inclosure 2. The study consists of five phases, with the final report/briefing due 57 weeks after the date of this directive.

c. COMPACS Task Force. A COMPACS Task Force is established to achieve the objectives of this study.

6 December 1974

SUBJECT: Computer Output Microforms Program and Concept Study (COMPACS)

d. Notification.

(1) Names of personnel selected will be provided to the Study Director (DAAG-AMS-C) NLT 7 days after the date of this directive. Personnel assigned to the Task Force will report to the Study Director NLT 2 weeks after the date of this directive. Personnel must have sufficient retainability for the duration of the study.

(2) Names of COMPACS coordinators will be provided to the Study Director NLT three weeks after the date of this directive.

e. Control procedures.

(1) TAG is responsible for direction and support of the COMPACS Task Force.

(2) A COMPACS Study Advisory Group (SAG) is established to assist the study sponsor (TAG); review the project efforts at the end of each major task/phase and at other times as appropriate; and provide guidance to the Study Director. The SAG will consist of members from OCOA; ODCSLOG; ODCSPER (MILPERCEN); MISD, OCSA; and a chairman from TAGO. ASA (FM) will be invited to provide an observer to the SAG.

(3) TAG will evaluate the study efforts of each phase and authorize initiation of each successive phase.

(4) TAG will review and recommend to the CSA a decision on the final systems proposal and implementation.

(5) MACOMs will be invited to send a representative to attend appropriate in-process reviews.

f. Action documents.

(1) Analysis of all data collections and evaluations (reports, users, market surveys, ADP programs, etc.).

(2) Contracts for services and equipment for tests.

(3) Microform test analysis and evaluation.

(4) Feasibility study on the consolidation of BASOPS-COM sites.

(5) Microform system, to include equipment, personnel, and concept of operation (if conversion to microforms is determined to be feasible).

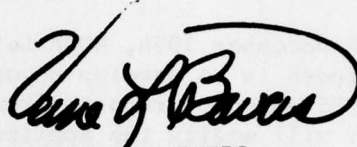
DAAG-AMS-M

SUBJECT: Computer Output Microforms Program and Concept Study (COMPACS)

(6) Time-phased plan for implementation (if conversion to microforms is determined to be feasible).

(7) MICRODIS proposal.

BY ORDER OF THE SECRETARY OF THE ARMY:



VERNE L. BOWERS
Major General, USA
The Adjutant General

2 Incl
as

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Commander, US Army Reserve Components Personnel & Admin Center



DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20314

HQDA Ltr 340-75-8

DAAG-AMZ-C (M) (21 May 75)

4 June 1975

Expires 6 December 1975

SUBJECT: Computer Output Microforms Program and Concept Study (COMPACS)
Modification (MICRODIS NR 4002-US5C)

1. PURPOSE. On 6 December 1974, HQDA Letter 340-74-7 established the COMPACS, whose purpose is to develop an optimum standard system for the conversion of BASOPS computer reports from paper to computer output microform. This letter will modify the applicable portion of the above directive to add Fort Carson as a COMPACS prototype test site.

2. HQDA Letter 340-74-7 is changed as follows:

Page 5, paragraph 6f.

f. (Superseded) Commanding General, FORSCOM will designate Forts Carson, Lewis, and Sam Houston as prototype test sites. The COMPACS Group will determine types of equipment, supplies, and services to be acquired. Equipment/services contract procurement will be obtained or modified locally.

BY ORDER OF THE SECRETARY OF THE ARMY:

VERNE L. BOWERS
Major General, USA
The Adjutant General

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DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL AND THE ADJUTANT GENERAL CENTER
WASHINGTON, D.C. 20314

HQDA Ltr 340-76-1

DAAG-PAP-A (1) (13 Jan 76) DAAG-AMZ-C

15 January 1976

Expires 30 June 1976

SUBJECT: Computer Output Microforms Program and Concept Study (COMPACS)

SEE DISTRIBUTION

HQDA Letter 340-74-7, dated 6 December 1974, and HQDA Letter 340-75-8, dated 4 June 1975, both subject as above, are amended to change the expiration date to 30 June 1976.

BY ORDER OF THE SECRETARY OF THE ARMY:

PAUL T. SMITH
Major General, United States Army
The Adjutant General

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Cdr, US Army Reserve Components Personnel & Admin Center





DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL AND THE ADJUTANT GENERAL CENTER
WASHINGTON, D.C. 20314

HQDA Ltr 340-76-5

DAAG-AMZ-C (M) (6 Jul 76)

8 July 1976

Expires 31 December 1976

SUBJECT: Computer Output Microforms Program and Concept Study (COMPACS)

SEE DISTRIBUTION

HQDA Letter 340-74-7, dated 6 December 1974, HQDA Letter 340-75-8, dated 4 June 1975, and HQDA Letter 340-76-1, dated 15 January 1976, all subject as above, are amended to change the expiration date to 31 December 1976.

BY ORDER OF THE SECRETARY OF THE ARMY:

PAUL T. SMITH
Major General, United States Army
The Adjutant General

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- HQDA (DAPE-ZA)
- HQDA (DAPC-ZA)
- Cdr, US Army RCPAC



ANNEX C, COMPACS Status Report 1

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Inclosure 3 - Withdrawn from Final Report	
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DISPOSITION FORM

For use of this form, see AR 340-15; the proponent agency is The Adjutant General's Office.

REFERENCE OR OFFICE SYMBOL

SUBJECT

DAAG-AMZ-C

COMPACS Status Report - 1

WORK THRU: DAAG-AM

FROM DAAG-AMZ-C

DATE

COM 1

TO: DAAG

LTC Search/dgd/30622

1. The Computer Output Microforms Program and Concept Study (COMPACS) has, in my opinion, gotten off the ground and can now be considered as a viable functioning entity. As you are aware, the difficulties encountered in effecting the assignment/detail of personnel to the group had an initially inhibiting influence upon substantive actions; however, the arrival of three individuals on 10 February placed the Group's staffing at 80%. The histogram on COMPACS, attached at inclosure 1, reflects the deviants from the time-schedule contained in the CSM, and inclosure 2 reflects personnel assigned or detailed to COMPACS as of this date as well as action taken to fill existing vacancies.

2. Notwithstanding the cited deterrent, the following actions reflected on the Summary Event List have been accomplished:

a. The administrative and logistical arrangements for the Group have been completed in large measure. Resolution of remaining actions within this area is in progress with members of the Centralized Support Division.

b. The listings of the coordinators at the MACOMs and the Points of Contact (POC) the BASOPS installations have been received and are attached at inclosure 3. It is pointed out that initial resistance on the part of Coordinators to provide data concerning the POCs was overcome by assuring the former that whenever feasible direct contact with POCs would be minimized.

c. The membership of the COMPACS Study Advisory Group (SAG) has been designated and is reflected on the listing at inclosure 4.

d. The objectives of the data collection effort were determined to be as shown on inclosure 5. The forms for the data collection effort were developed with appropriate personnel within the Systems Development Directorate, input was solicited from the MACOM Coordinators, and were coordinated with USA Management Systems Support Agency (USAMSSA). The Data Collection Sheets (DCS), referred to as questionnaires in the governing CSM and project directive, are for completion by the Data Processing Installations (DPI) and BASOPS users and are attached as inclosure 6 and 7 respectively.

e. The guidelines, attached at inclosure 8, to assist Fort Huachuca in the development of specifications to obtain the required equipment for the "in-house test" were prepared in conjunction with the appropriate individual from Administrative Systems Division and forwarded to the USA Communications Command (USACC) Coordinator. Additionally, pertinent information concerning the existing contracts in effect at Fort Sam Houston and Fort Lewis, wherein "service bureau tests" will be conducted, has been obtained.

f. The detailed List of Events, Summary Events Chart, detailed PERT chart, and milestone Chart have been reviewed and, where appropriate, modifications to the PERT chart have been accomplished in concert with representatives of the Administrative Systems Division. At inclosure 9 is a synopsis of items contained on the detailed List of Events through Phase II, wherein specific commentary is deemed appropriate.

DA FORM 2496

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C-2

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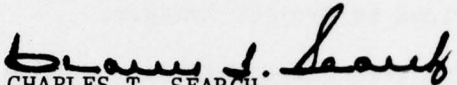
U.S. GPO 1974-540-843/855

4AG-AMZ-C

SUBJECT: COMPACS Status Report - 1

3. Based upon the current state of staffing and the accomplishment of actions thus far, it would be highly desirable for a prescribed "start date" for the COMPACS Study Group to be established. Accordingly, it is proposed that 3 February 1975, the date on which 50% of staffing was attained, be designated as the "start date" for the COMPACS Study Group.

9 Incl
as


CHARLES T. SEARCH
LTC(P), AGC
Project Manager, BASOPS-COM

COMPACS HISTOGRAPH

<u>DATE</u>	<u>EVENT</u>
6 Dec 74	CSM 74-340-108, "Computer Output Microforms Program and Concepts Study (COMPACS)" issued.
13 Dec 74	CSM prescribed this date as that on which the names of personnel selected for assignment/detail were to be provided to Project Manager.
20 Dec 74	CSM prescribed this date as that on which personnel assigned/detailed to Study Group were to report for duty.
6 Jan 75	Project Manager, BASOPS-COM (LTC Search) and Deputy (CPT Clements) reported for duty and with GSA/NARS Management Analyst (Mrs. Starbuck, GS-13) and TAGCEN Computer Systems Analyst (Mr. Kennedy, GS-12) commenced occupancy of designated office space. At this point, staffing of Group was at 40%. Functional actions incident to organizational management, expediting the provision of personnel, and operational activity commenced on a priority basis.
10 Jan 75	TAG signed internal study directive on COMPACS.
14 Jan 75	Internal study directive received by Project Manager, BASOPS-COM.
3 Feb 75	Management Analyst (Mr. Bielenberg, GS-13), recruited against "TRADOC Position", reported for duty, constituting staffing at 50%.
10 Feb 75	Computer Specialist (Mr. White, GS-13) detailed from Computer Systems Command (CSC); Logistics Management Analyst (Mr. Condit, GS-12) detailed from the Office, Deputy Chief of Staff for Logistics; and Computer Management Analyst (Mr. Miles, GS-13) recruited against "FORSCOM Position" reported for duty constituting staffing at 80%.
10 Mar 75	Secretary (Typing) (Mrs. Coates, GS-6) reported for duty constituting staffing at 90%.
24 Mar 75 thru 23 Mar 75	Members of COMPACS Group (LTC Search, Mr. Miles, Mrs. Starbuck, and Mr. Kennedy) visited designated test sites: Forts Huachuca, Sam Houston, and Lewis. Group established contact with appropriate coordinators/POCs; conducted briefing on overall thrust of COMPACS endeavor, purpose of data collection effort, and method to be followed in completing data collection forms; conducted discussion period at end of briefings; and visited certain user locations at sites and equipment (COM recorder, processor, and duplicator)

DATEEVENT

location site at Fort Huachuca. During visit to Fort Huachuca, the location of the in-house test, the Group concurred in action to award contract for in-house test equipment to Stromberg Datagraphix and met with its west coast representative to discuss such items as availability and installation of equipment, maintenance and servicing arrangements, training of concerned individuals, and related matters. At Forts Huachuca and Lewis the Group learned that SAILS, while originally scheduled for implementation in time for the test, was not in operation at these installations and that, due to slippage, SAILS would not be operational at these prototype sites until well after the test. This was recognized as an inhibitor in that SAILS could, thus, only be tested at Fort Sam Houston. Accordingly, the implications thereof were recognized as a matter for discussion at the forthcoming Study Advisory Group meeting (SAG).

- 4 Apr 75 COMPACS Management Guidebooks delivered to principal SAG members for review prior to SAG meeting.
- 10 Apr 75 COMPACS SAG Meeting held from 1000 - 1200 hours in ODCSPER Conference Room, the Pentagon. Introductory session on COM preceded SAG from 0930 - 0955 at same location. (Minutes of SAG - to include attendees, agenda, briefing text and visuals, and synopsis of discussion period - as well as briefing text and visuals used in Introduction to COM - on file in COMPACS' Office.)
- 25 Apr 75 Fort Carson approved as additive prototype test site for BASOPS-COM utilizing an in-house capability without a reformatter by all SAG members and HQ FORSCOM. (Approved memorandum on file in COMPACS' office.)
- 5 May 75 Members of COMPACS Group (LTC Search, Mr. White, and Mr. Kennedy)
thru visited Fort Carson. Group established contact with POC; con-
8 May 75 ducted briefing on overall thrust of COMPACS endeavor, introduc-
tion to COM, objectives of data collection effort, and completion
of Data Collection Sheets; visited Kaman Sciences to see Bell
and Howell COM recorder and associated equipment in operation;
conducted extensive discussions with vendors in person and tele-
phonically to include NCR, Bell and Howell, Datagraphix, Xidex,
Scott-Graphics, Eastman Kodak, Calcomp, and Quantor regarding
availability of equipment, maintenance, supplies, rental costs,
etc; reviewed proposals submitted by several of aforementioned
• vendors and assisted with selection of readers; held discussions
with representatives from Fort Carson civilian personnel office in
conjunction with Mr. Devenyns (Chief, MISO); worked with Fort
Carson functional proponents to resolve certain issues associated
with BASOPS reports listing; visited site of COMPACS workshop
session to be conducted on 19 May to ascertain suitability,
graphic equipment available, etc; and visited proposed site for
location of COM equipment. Group reviewed considerable efforts
and paper prepared by MISO personnel concerning the COBOL Program
developed and tested by them with respect to resolving the
"Floating PCN" in SAILS.

<u>DATE</u>	<u>EVENT</u>
13 May 75	First one day COMPACS Workshop Session conducted in Forrestal Building, Washington, DC, for representatives of BASOPS installations less those designated as test sites. Agenda included welcoming remarks and briefings entitled Introduction of Micrographics/COM, Overview of COMPACS, COMPACS Data Collection Effort, Data Collection - DPI Portion, and Data Collection - User Portion, as well as a discussion period. Representatives from 11 BASOPS installations, as well as representatives of TRADOC, FORSCOM, and MDW, attended the Workshop Session.
20 May 75	Second one day COMPACS Workshop Session conducted in Command Conference Room at Fort Carson, CO for representatives of BASOPS installations less those designated as test sites. Agenda same as reflected in 13 May 75 entry. Representatives from 14 BASOPS installations attended the Workshop Session. Upon completion of the Workshop Session, two members of the COMPACS Group visited Fort Benjamin Harrison to present a briefing on the COMPACS endeavor to key personnel of the USA Personnel and Administration Combat Development Agency (PACDA) and several members of the faculty of the USA Institute of Administration.
30 May 75	Third one day COMPACS Workshop Session conducted at Fort McPherson, GA for representatives of BASOPS installations less those designated as test sites. Agenda same as reflected in 13 May 75 entry. Representatives from 17 BASOPS installations attended the Workshop Session. (Consolidated MFR on Workshop Sessions is on file in COMPACS Office.)
2 Jun 75	Management Analyst (Mr. Edward White, GS-12) reported for duty constituting staffing at 100%.
2 Jun 75 thru 6 Jun 75	Mr. Condit of COMPACS Group visited Fort Huachuca to participate, observe, and evaluate vendor COM software and operator training program. Program of Instruction (POI) was conducted via mediums of lectures, training films, hands-on-training of the COM hardware, etc. POI consisted of three classes - two for the users and one for the software personnel. Training program generated enthusiasm among students and was evaluated as basically an excellent program.
13 Jun 75	COMPACS Group personnel, in concert with representatives of the Microforms Management Branch of Administrative Systems Division, Administrative Management Directorate, TAGCEN, approved selection of NCR recorder/processor and Datagrafix duplicator as equipment to be obtained on lease basis for the COMPACS test at Fort Carson. Decision to obtain specified equipment was coordinated with FORSCOM Coordinator and Fort Carson POC. (MFR on evaluative process used in determining equipment selected for in-house test at Fort Carson is on file in COMPACS Office.)

DATEEVENT

16 Jun 75 Members of the COMPACS Group (CPT Clements, Mr. Miles, and
thru Mr. Kennedy) visited Forts Huachuca and Sam Houston to determine
20 Jun 75 "readiness posture" for conduct of COMPACS test and to
coordinate draft of proposed test plan and reports to be tested
with POC. While at Fort Sam Houston, COMPACS personnel
visited Zytron Corporation, the service bureau which commenced
providing COM service to Fort Sam Houston effective 1 July
1975.

23 Jun 75 Members of COMPACS Group (Mr. Miles, Mr. Kennedy) visited Fort
thru Lewis and were subsequently joined at Fort Carson by Mr. Herb White
27 June 75 to determine "readiness posture" for conduct of COMPACS test
and to coordinate draft of proposed test plan and reports
to be tested with POCs.

3 Jul 75 Members of COMPACS Group visited USA Computer Systems Command
at Fort Belvoir, VA to present condensed briefing on COMPACS
endeavor to Commander and key members of his staff. (MFR
of visit, with script and visuals used, on file in COMPACS Office.)

9 Jul 75 Members of COMPACS Group visited all prototype test sites as
thru follows: Fort Huachuca (LTC Search, Mr. Kennedy, & Mrs. Starbuck);
18 Jul 75 Fort Lewis (Mr. Kennedy & Mrs. Starbuck); Fort Carson and satellite
site, Fitzsimons Army Medical Center (LTC Search, Mr. Miles &
Mr. H. White); and Fort Sam Houston (Mr. Miles & Mr. H. White).
Purpose of visit was to provide on-site presence by members
of COMPACS Group during initial portions of test;
identify and resolve any initial problems; check placement of
readers and reader-printers; interface with vendors, as appropriate;
check quality control; etc.

Group members, points of contact, and vendors sought to resolve
issues associated with quality, standards, delivery of outstanding
requisitioned readers and reader-printers, etc., as required.
Determined that change in peripheral equipment and up-grade of
central processing unit at Fort Sam Houston would be deterrent to
production of additional BASOPS output in COM medium; additional
continuing effort between concerned personnel at Fort Huachuca
would be required to enhance quality of output; that
personnel at Fort Carson and contractors would need to resolve
minor software issues; and that local installation action was re-
quired to expedite the delivery of outstanding equipment. The
Group noted that the points of contact evidenced a positive attitude
toward the test, that users evidenced satisfaction in the use of
microfiche in lieu of paper, and that vendor support or responsive-
ness to resolve troublesome areas was satisfactory.

DATEEVENT

24 Jul 75 COMPACS SAG Meeting held from 1000 - 1200 in ODCSPER Conference Room, The Pentagon. (Minutes of SAG - to include attendees, agenda, briefing text and visuals, and synopsis of discussion period - on file in COMPACS' Office.)

7 Sep 75
thru
12 Sep 75 Members of COMPACS Group visited all prototype test sites as follows: Fort Lewis (Mrs Starbuck and Mr. Ed White); Fort Sam Houston (Mr. Bielenberg and Mr. Condit); Fort Huachuca (Mrs. Starbuck and Mr. Ed White); Fort Carson (Mr. Bielenberg, Mr. Condit, and Mr. Ed White) to include a visit to Fitzsimons Army Hospital. Purpose of visit was to review progress of test; render on-site assistance, as required; check placement of and identify any problems encountered with maintenance and operation of equipment; review qualitative and quantitative aspects of BASOPS reports on COM; check on interface with vendors to include service bureaus; interview users and supervisors regarding use, acceptability, and reaction to COM medium - i.e., desire to receive more or less on COM, problems encountered, training requirements, etc.

16 Sep 75 Members of COMPACS Group (LTC Search, CPT Clements, Mr. Miles, and Mr. Kennedy) informally briefed TAG (Chairman, SAG) on flow and methods of processing BASOPS spool tapes to microfiche as requested during briefing to him on 3 July in his capacity as Commander, CSC. TAG was advised of intent to present briefing at forthcoming IPR as well as to representatives of CSC. TAG indicated that a test of transition time from spool tapes to microfiche could prove useful.

17 Sep 75 COMPACS hosted Prototype Test Site In-Process Review (IPR) for MACOM Coordinators and test site Points of Contact (POC) as well as representatives from PACDA, DMIS, and Systems Development Directorate of TAGCEN. Purpose of IPR was to provide an opportunity to interchange experience among test site personnel, assist in COMPACS test, and aid each test site's COM efforts. Agenda topics included discussions of hardware, software, reader/reader-printer aspects, quality control, distribution of reports, and prototype test evaluation efforts. Attendees were advised that a test of transition time from spool tapes to microfiche would be conducted using tapes from a representative BASOPS cycle output from Fort Carson. (MFR on IPR - to include agenda, attendees, outlines for discussion, texts, visuals, etc. - on file in COMPACS' Office.)

24 Sep 75 Members of COMPACS Group (LTC Search, CPT Clements, Mr. Miles, and Mr. Kennedy) participated in Eastman Kodak's Federal Government Orientation Program. Participation included generalized COMPACS briefing and question and answer period. Other participants included offices/agencies from Executive Branch of US Government.

DATEEVENT

2 Oct 75 Members of COMPACS (COL Search, CPT Clements, Mr. Miles, and Mr. Kennedy) and Mr. Ludka (TAGCEN Microforms Management Branch) met with representatives of GSA (Mr. Lambert, Mr. Callahan, and Mr. Dean) to discuss procurement procedures to obtain COM and related equipment. GSA advised that their agency would handle procurement for both in-house and service bureau sites, when determined; would assist in development of required specifications, and handle all related actions in manner similar to that followed in pending COM acquisition for USMC.

4 Oct 75 Members of COMPACS Group visited all prototype test sites as
thru follows: Fort Carson (Mr. Bielenberg, Mr. Herb White and Mr.
10 Oct 75 Condit); Fort Lewis (CPT Clements and Mr. Kennedy); Fort Sam Houston (Mr. Bielenberg, Mr. Herb White, and Mr. Condit); Fort Huachuca (CPT Clements and Mr. Kennedy). Purpose of visit was to render assistance to users and supervisors regarding use and acceptability of COM and that pertaining to readers, and to provide assistance to Points of Contact. Information concerning quantitative and qualitative aspects of reports on COM was obtained, quantitative usage of reader-printers was verified, training requirements assessed, production logs reviewed, maintenance records reviewed, vendor interface rechecked, on-site potential for improvement reviewed, etc. Simultaneously, Mr. Miles processed 26 BASOPS spool tapes from Fort Carson, Fort Lewis, and Fort Huachuca with the view toward determining the time it took to produce all on hard copy; those on hard copy and microfiche, when required; and those solely on microfiche. The spool tapes from Fort Carson were mailed to Fort Sam Houston for conduct of the test by MISO personnel.

22 Oct 75 Col Edward H. Metzger - Chief, Field Systems Division, MISD and new MISD member of SAG - was provided informal briefing on general status of COMPACS Study and the transition of spool tapes to microfiche by COL Search, CPT Clements, Mr. Miles, and Mr. Herb White.

6 Nov 75 COMPACS SAG Meeting held from 1000 to 1215 in ODCSPER Conference Room, the Pentagon. (Minutes of SAG - to include attendees, agenda briefing text and visuals, and synopsis of discussion period - on file in COMPACS' Office.)

11 Nov 75 Members of COMPACS Group visited USA Computer Systems Command at Ft. Belvoir, VA and presented an update briefing on COMPACS efforts to Commander and key members of his staff. (MFR of visit - with script and visuals used - on file in COMPACS' Office.)

3 Dec 75 Unfinanced Requirement (UFR) for FY 76 implementation funds dropped from BER submission. Sufficient funds are available to fund COMPACS test sites, at current levels, through 30 Sep 76.

6 Dec 75 Program Budget Decision Reclama published disallowing implementation

DATEEVENT

- funds for FY 77. Sufficient funds available within AMD approved budget to continue funding of COMPACS test sites only.
- 10 Dec 75 Members of COMPACS Group briefed the Chief, SIDPERS Team, SIDPERS/JUMPS-RC Task Force, Ft. Benjamin Harrison, IN, his advisor, and Chief, SIDPERS-RC Programming Team, OCAR, on COMPACS endeavors to assist attendees in adapting SIDPERS to the Reserve Components. (MFR with script and visuals used on file in COMPACS Office.)
- 11 Dec 75 Members of COMPACS participated in world-wide SIDPERS Conference at HQ, MILPERCEN, which was attended by Chiefs of SIDPERS Interface Branches throughout the Army, by conducting a condensed briefing on COMPACS' efforts with emphasis on SIDPERS. (MFR of visit with script and visuals used on file in COMPACS Office.)
- 11 Dec 75 COMPACS dispatched its recommendations regarding the selection of reports recommended for COM. These recommendations, sent individually to each PA, established the framework for implementing BASOPS-COM by system and provided the basis for establishment of costing forecasts in the BASOPS-COM cost/benefit analysis (CBA). Replies received from each PA indicated the respective concurrences/comments and delineated specific reports as being either recommended or optional.
- 15 Dec 75 Mrs. Yvonne Starbuck (GS-13, Management Analyst) returned to GSA/NARS upon expiration of existing one year contract between GSA/NARS and TAGCEN. Departure of Mrs. Starbuck reduced COMPACS staffing to 90% of authorization.
- 23 Dec 75 COMPACS conducted an in-house In-Process Review (IPR) of COMPACS' actions to date, actions required to complete study, and actions required to extend efforts/fundings of COMPACS as BASOPS-COM. The IPR was conducted in TAG's office (Rm 2E536, Pentagon) from 0930-1145. (MFR with script and hand-out material used on file in COMPACS Office.)
- 31 Dec 75 CSM 75-310-100 issued, extending expiration of COMPACS' chartering documents (CSM 74-340-108 and 75-340-31) to 30 Jun 76.
- 7 Jan 76 COMPACS dispatched a request to MISD regarding computer costing data for use in CBA. Reply was received 17 Feb 76 and reflected that spooling for COM resulted in a reduction of processing time equal to 15% of the value of hourly computer time at BASOPS installations. This information was based on COMPACS benchmark at test installations and cost modeling data produced by MISD.

<u>DATE</u>	<u>EVENT</u>
9 Jan 76	Mr Curtis R. Condit (GS-12, Logistics Management Analyst), ODCSLOG, retired from Civil Service. Departure of Mr. Condit reduced COMPACS staffing to 80% of authorization.
15 Jan 76	HQDA Ltr 340-76-1, extending the expiration date of HQDA Ltrs 340-74-7 and 340-75-8, which implemented provisions of chartering CSM, as changed, published and distributed to field.
5 Feb 76	COMPACS concluded its analysis of COM software considerations and dispatched to MISD its recommendation concerning software necessary to support BASOPS-COM. MISD indorsed the correspondence to USACSC, adding policy statements to the effect that COM software was considered to be GP software. CSC was assigned to act as ARA, with TAGCEN acting as PA. CSC replied to COMPACS with its concurrence of the software recommendations and established a formal line of communication/working group to develop BASOPS-COM supporting software.
8 Feb 76 thru 13 Feb 76	COMPACS representatives (Mr. James Miles and Mr. Herbert White) accompanied CSC representative (Mr. James Miller) to the two COMPACS prototype installations which utilized in-house production capability. This visit was to confirm COMPACS software recommendations and to assist in determining if software developed during the test could be extended as standard BASOPS software to each BASOPS installation during the extension of BASOPS-COM.
12 Feb 76	COMPACS completed its analysis of software and methodology used by its prototype installations to produce indexing and titling on microfiche. The recommendation COMPACS prepared and dispatched to each respective PA included actual fiche produced at the test installations and a recommended standard format for each system in BASOPS. This recommendation was concurred in by each PA and, as a result, CSC was requested to implement these standards during the development of the software to support BASOPS-COM.
17 Feb 76	Director, Admin Mgt, was informed by DAAG-CO that the funding necessary to support the Army Micrographics Program, which had included funding for BASOPS-COM, had been partially restored by OCA through a reallocation of DA funds. Apportionment of the restored funds has been concluded and BASOPS-COM appears to be funded for extension during FY 77.
18 Feb 76 thru 20 Feb 76	COMPACS personnel (COL Search, CPT Clements, Mr. Bielenberg, Mr. Kennedy, and Mr. Ed White) attended seminar on ADP Procurement in the Federal Government.

DATEEVENT

25 Feb 76 Coordination of the proposed Time-Phased Plans for Implementation of BASOPS-COM was formally initiated. Correspondence was dispatched to each MACOM concerned as well as PA, MISD, and CSC.

8 Mar 76 COMPACS personnel (COL Search, CPT Clements) briefed BG Tompkins, Dir of Log Plans, Opns, and Systems. This briefing included discussion of COMPACS background, current status, interim-COM status, and milestone schedule for BASOPS-COM extension. (Script and hand-out material for this briefing is on file in COMPACS Office.)

8 Mar 76 The proposed BASOPS-COM Extension Schedule was formally dispatched to the MACOM with information copies to MISD and PA. This proposed schedule identified each BASOPS installation and the order in which BASOPS-COM would be extended to it.

12 Mar 76 Mr Herbert White (GS-13, Computer Specialist), USACSC, returned to his parent organization following completion of his detail to COMPACS. Mr White's departure reduced COMPACS staffing to 70% of authorization.

15 Mar 76 USAAA detailed a team of auditors to conduct audit of COMPACS efforts to date to include validation of cost/savings identified as a result of BASOPS-COM.

23 Mar 76 MACOMs and proponent agencies concurred in the proposed Time-Phased Plans for Implementation of BASOPS-COM and the proposed BASOPS-COM Extension Schedule with recommended minor changes to each which were adopted by COMPACS.

25 Mar 76 Proponent agencies concurred in the proposed Standardized Titling and Indexing configuration developed by COMPACS with recommended minor changes which were adopted.

26 Mar 76 COMPACS SAG meeting held from 1000 hours to 1230 hours in USAMSSA Conference Room, the Pentagon. (Minutes of SAG - to include attendees, agenda, briefing text and visuals, and synopsis of discussion period - on file in COMPACS' office.)

26 Mar 76 USAAA detail, involved in the audit of COMPACS effort to include validation of cost/savings identified as a result of BASOPS-COM, suspended due to SAG guidance to develop a listing of mandatory "hard core" reports within each subsystem for production in COM.

DATEEVENT

26 Mar 76	COMPACS requested prototype test sites to submit validated listing of BASOPS reports produced as of 31 March by production mode, to include whether report was produced in an unstacked or stacked mode, in preparation for review by proponents, visits to test sites by proponent representatives, and subsequent determination by proponents of placement of BASOPS-COM reports into "Mandatory," "Recommended," and "Other" production categories.
8 Apr 76	Members of COMPACS Group (Mr. Miles and Mr. Kennedy) visited personnel of the USA Logistics Center at Fort Lee, Virginia, to discuss and resolve several uniquenesses in titling and indexing within the SAILS sub-system.
23 Apr 76	Based on information received from prototype test sites concerning BASOPS-COM reports produced as of 31 March, correspondence was dispatched to proponents for review and analysis in preparation for visit to test sites and subsequent, eventual finite determination as to placement of each report into one of three production categories.
26 Apr 76 thru 29 Apr 76	Members of COMPACS (COL Search, Mr. Miles, and Mr. Kennedy) attended the 1976 Annual Convention of the National Micrographics Association and participated in the USA Micrographics Training Conference conducted simultaneously with the Convention. Participation included presentation concerning COMPACS' endeavors (content is on file in COMPACS' office), conduct of an open forum on BASOPS-COM, and hosting a workshop session concerning the technical aspects of COM.
28 Apr 76	HQ, CSC acknowledged receipt of BASOPS-COM software specifications developed by COMPACS, stated that the specifications appeared feasible, they would initiate work on programming specifications and program development, and that they anticipated no difficulty in completing BASOPS-COM software by the third quarter of 1976.
28 Apr 76	Captain D. Sherrill Clements (Deputy Project Manager) departed on a reassignment. Departure of Captain Clements reduced COMPACS staffing to 60% of authorization.

<u>DATE</u>	<u>EVENT</u>
10 May 76 thru 14 May 76	Members of COMPACS (Colonel Search, Mr. Miles, and Mr. Kennedy) accompanied proponent representatives (SAILS - Mr. Edward Farmer, from LOGCEN; SIDPERS - Mrs. Mary McNally, from MILPERCEN; and STANFINS - Mr. Jasper Scheer from COA) to Forts Sam Houston and Carson (SAILS representative visited latter site only). Purpose of visit was to enable proponent representatives to ascertain user reaction as to acceptability of fiche and discuss with functional personnel at user level the viability of producing each report in COM so as to enable the proponent representative to render a finite determination as to the placement of each report into one of three production categories. COMPACS members also worked with test site POCs on additional reader requirements; visited the COM service bureau supporting Fort Sam Houston to discuss use of diazo vice vesicular film; reviewed application of COM to programs/systems other than those under review by Study Group; analyzed production and maintenance logs; interviewed supervisors and users re acceptability/preference of readers; checked reaction to the standardization of software, titling, and indexing; discussed the sequential actions relating to the extension of BASOPS-COM subsequent to approval of the Study Group's recommendations, etc.
14 May 76	Mr. Edward R. White (GS-12, Management Analyst) departed the Group on reassignment for promotion. However, he continued to work with COMPACS to finalize the Cost Benefit Analysis (CBA) and coordinate the USAAA audit thereof, on a part-time basis, until 14 June 76. Mr. White's departure reduced COMPACS staffing to 50% of authorization.
18 May 76	COMPACS personnel met with representative from NCR (contractor at Fort Carson) and Quantor to discuss change in marketing arrangements between the two corporations effective 1 May. Under it, NCR would no longer be involved in the lease of new COM equipment. Representatives assured COMPACS that there would be no diminution in support or interest in Carson operation. The NCR modified software package in use at Fort Carson would be provided Quantor, C-E support would continue under existing arrangements, and local Quantor representative would be in close and continuing contact with COMPACS.
20 May 76	USAMSSA completed development and successful testing of the automated Cost Benefit Analysis (CBA).

DATEEVENT

27 May 76 COMPACS personnel (Colonel Search, Mr. Miles, Mr. Bielenberg and Mr. Kennedy) met with MILPERCEN representatives to discuss background of requirement to place each report into one of three production categories and to discuss with them several alternate methods by which such could be done within the SIDPERS area due to the unique distribution requirements within the sub-system, the impact of SIR II, (SIDPERS Information Retrieval II), and the effect of CABL (Company Administration at the Battalion Level).

1 Jun 76 ODCSLOG clarified its guidance concerning "New Start" to the effect that approval would only be required when the monetary thresholds specified in AR 235-5 were exceeded - i.e., \$50,000 capital investment and \$100,000 in annual operating expenses.

2 Jun 76 Proponent agencies advised COMPACS of final determinations regarding placement of each report into one of three production categories - i.e., "Mandatory", "Recommended", and "Other".

3 Jun 76 Obligation of HQDA (TAGCEN) money to acquire user equipment necessary to bring prototype sites up to desired COM-operating level completed. Total of \$62,000 provided from reprogrammed COMPACS funds; the major portion was for purchase of 340 additional readers.

4 Jun 76 Members of COMPACS (Colonel Search and Mr. Miles) and DMIS representative (LTC Shine) met with CSC representatives (Col Jenkins, Mr Armstrong, and Mr. Herb White) to discuss current and future actions re development of BASOPS-COM software requirements and supporting specifications. Meeting surfaced that recent DMIS guidance to CSC provided that executive software would be developed contractually as opposed to in-house. Such, due to time consumed by contract award procedures, could add 60 days to scheduled milestone events. DMIS representative agreed to seek an exception to guidance to permit in-house development and, thus, adhere to established milestones.

7 Jun 76 Mr. Rudolph K. Mund from USAAA resumed conduct of detailed audit, based upon the final determination placing reports into one of three production mode categories, to include validation of cost/savings identified as a result of BASOPS-COM.

7 Jun 76 Correspondence forwarded to DAAG-CO regarding proposed staffing for BASOPS-COM Implementation Group. Requested continuance of current four "hire-lag" spaces augmented by an additional four temporary "hire-lag" spaces through 30 June 1978. Proposed composition consisted of Chief, secretary, and two three-person teams of which one would be oriented toward in-house sites and the other to service contract supported sites.

DATEEVENT

11 Jun 76 Mrs. Constance Coates (GS-6, Secretary-typist) departed the Group on reassignment with TAGCEN. Mrs. Coates' departure reduced COMPACS staffing to 40% of authorization.

15 Jun 76 Mr. Mund completed on-site work connected with the USAAA Audit of COMPACS' CBA.

21 Jun 76 TAG approved the hiring of eight (8) FTP civilians for the BASOPS-COM Implementation Group as proposed in correspondence dated 7 Jun 76.

22 Jun 76 COMPACS initiated action to hire civilians for approved positions. Estimated time to receipt of first referral list is six to eight weeks.

28 Jun 76 Mrs. Majorie D. Harris (GS-5, Secretary), was detailed from within Admin Mgt Directorate to the COMPACS Group.

23 Jul 76 Mr. James R. Miles (GS-13, Computer Systems Analyst) departed the COMPACS Group for a position in another agency. Mr. Miles' departure reduced COMPACS staffing to 30 percent.

30 Jul 76 Colonel Charles T. Search, Project Manager, retired. His departure reduced staffing to 20 percent.

1 Aug 76 DSC(AS), TAGCEN assumes duties as Acting Project Manager.

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19 MAR 19

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3 February 1975

MEMORANDUM FOR RECORD

SUBJECT: Objectives of the Data Collection Effort

1. The objectives of the data collection effort inherent to the systems development study for converting Base Operating Information System (BASOPS) computer output to microforms (COM) at Army installations are:

- a. To validate the feasibility of using COM for various BASOPS reports,
- b. To determine equipment needed to satisfy user requirements,
- c. To contribute to the determination of costs and savings associated with conversion to a COM system,
- d. To assist in the development of an implementation plan for MICRODIS at BASOPS installations.

2. The following items may have an impact on determination whether a report can, or should, be used in a system test or be converted:

- a. whether the report is classified,
- b. frequency and length of use,
- c. frequency of conflict situations (simultaneous use),
- d. requirements for making notations or marks on the report,
- e. requirement for making side by side comparisons of data.

3. Equipment requirements for COM usage will be determined on the basis of:

- a. what equipment is currently available to the user,
- b. number of reports users in an office; number of users for various reports,
- c. requirements to produce copies of pages; copies of entire reports,
- d. type of environment reports will be used in.

DAAG-AMZ-C

3 February 1975

SUBJECT: Objectives of the Data Collection Effort

Production equipment requirements will be based on workload and performance criteria to be obtained from other sources (i.e., the POC and Coordinators), not through questionnaires.

4. Initially, data concerning production and usage factors in the present system must be collected. Standard dollar costs can be applied to these factors to estimate system costs. Production factors should include:

- a. paper costs, or volume of paper used for each run,
- b. report frequency,
- c. special paper or preprinted forms required,
- d. number of copies produced,
- e. computer time (run time),
- f. handling required (burst, bound, decollated)

Usage costs include:

- g. file or storage space required (number of copies, frequency and retention term),
- h. filing equipment,
- i. method of distribution,
- j. number of distribution points,
- k. number of copies of pages locally reproduced; copies of entire reports locally produced/reproduced,
- l. data retrieval (look-up or search) time.

CF: DAAG-SD (Ms Kirksey)

8.
CHARLES T. SEARCH
LTC(P), AGC
Project Manager, BASOPS-COM

COMPACS DATA COLLECTION (PART 1 - DPI)

INTRODUCTION: Please read the instructions on the reverse before completing this data collection sheet. The information you provide will not be of any value unless all items are completed.

A. PRODUCT NAME (REPORT TITLE)

(1) (4)

B. DPI NUMBER

(5) (14)

C. PRODUCT CONTROL NUMBER (Left justify, space fill)

(15)

D. REPORT CLASSIFICATION
1 - Unclass 3 - Secret
2 - Conf 4 - Top Secret

(16) (18)

E. RUN TIME
(In minutes)

(19)

F. PRODUCTION FREQUENCY
1 - As req 5 - Monthly
2 - Yearly 6 - Semi-monthly
3 - Quarterly 7 - Weekly
4 - Bi-monthly 8 - Daily

(20) (23)

G. NUMBER OF PAGES

(24)

H. PART PAPER
(1 - 6)

(25)

I. SIZE PAPER
1 - 8 x 10 1/4 or
8 1/2 x 11
2 - 11 x 14
3 - Other

(26)

J. SPECIAL FORM
1 - Yes
2 - No

(27) (29)

K. NO. OF REPRODUCTIONS
(Copies Reprinted)

(30)

L. COPIES RETAINED
BY DPI (Enter
0 through 9)

(31) (33)

M. DISTRIBUTION

N. METHOD OF DISTRIBUTION
1 - Yes
2 - No

(34) ☐ PICKUP

(35) ☐ HAND CARRY

(36) ☐ MAIL

(37) ☐ ELECTRONIC
TRANSMISSION

O. HANDLING
1 - Yes
2 - No

(38) ☐ BURST

(39) ☐ DECOLLATED

(40) ☐ BOUND

(41) ☐ PACKAGED,
BOXED

(42) ☐

P. IS REPORT DISTRIBUTED
OUTSIDE BASOPS SYSTEM
(Higher headquarters, etc.)
1 - Yes
2 - No

(79)

Q. TRANSACTION CODE

(80)

R. CARD NUMBER

COMPACS DATA COLLECTION SHEET (PART I, DPI)

PURPOSE: The COMPACS DPI DATA COLLECTION SHEET will furnish information on current reports production to be used in planning Computer Output Microfilm (COM) system tests and design of an optimum COM system for BASOPS.

INSTRUCTIONS: Complete all items. Only the Product Control Number should be left justified, space filled. Use no dashes, hyphens, or special characters. Right justify and zero fill all other answers.

- Item A. Product Name (Report Title) - Self-explanatory.*
- Item B. DPI (Data Processing Installation) Number - Self-explanatory.*
- Item C. Product Control Number (PCN) - Enter the BASOPS product control number as it appears on the list provided by the POC. The entry should be left justified, space filled, using no dashes or special characters.*
- Item D. Report Classification - Indicate the security classification of the report.*
- Item E. Run Time - Enter the production time, start to finish, in minutes.*
- Item F. Production Frequency - Enter the number corresponding to the report production frequency. If a recurring report is produced on demand, or on a frequency other than those listed, enter "1" (as req).*
- Item G. Number of Pages - Enter the average number of pages in a single copy of the report, including title pages and indexes if they are regularly produced with the report. If page counts are not available, use a factor of 200 pages per inch.*
- Item H. Part Paper - Enter the number of copies (1 through 6) usually printed in a single run.*
- Item I. Size Paper - Enter the number corresponding to the size paper that is normally used to print out the report. Standard computer print-out is 11" by 14"; 8" x 10½" or 8½" x 11" are letter sizes. For any other size, enter "3" for "Other."*
- Item J. Special Form - If the report is printed on any type of pre-printed form, enter "1" for "Yes."*
- Item K. Number of Reproductions - Enter the number of copies reproduced for distribution. Do not include the original reports produced on the printer. Do include all other copies produced, regardless of method (e.g., copiers, offset printing, photographic reproduction, etc.)*
- Item L. Copies Retained by DPI - Enter the number of copies retained by the DPI after distribution.*
- Item M. Distribution - Enter the number of points or offices to which the report is distributed. This is not necessarily the same as the number of copies, since one office may receive more than one copy.*
- Item N. Method of Distribution - Enter "1" for "Yes" or "2" for "No," for each method of distribution listed, i.e., if one copy is handcarried and the remainder are picked up, enter "1" in blocks (34) and (35) and "2" in the remainder of the blocks.*
- Item O. Handling - Enter "1" for "Yes" or "2" for "No" for each type of handling listed.*
- Item P. Report Distributed Outside BASOPS - Enter "1" if the report is distributed to any user outside the BASOPS system, such as higher headquarters, or other parts of DoD, etc.*
- Item Q. Transaction Code - For study group use only.*
- Item R. Card Number - For study group use only.*

COMPACTS DATA COLLECTION (PART 2 - USER)

FOR DPI USE ONLY - DO NOT WRITE IN THIS BLOCK

PRODUCT NAME

DPI CODE

(1)	(2)	(3)	(4)

PRODUCT CONTROL NUMBER

(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)

FOR POC USE ONLY - DO NOT WRITE IN THIS BLOCK

COPY NUMBER

(15)	(16)	(17)

TO BE COMPLETED BY USER

A. How many copies of this report are received by your office? (Right justify, i.e., write "2" as)

(18)	(19)

B. How many copies are used in your office?

(20)	(21)

C. Do you need more copies of the report to do your job more efficiently?

1. Yes
2. No

(22)

D. Who uses this copy of the report? (Indicate the most frequent users.)

1. Commander
2. Staff action officers
3. Clerical personnel
4. Technicians
5. Others

(23)

E. Is your copy of the report kept?

1. Yes
2. No

(24)

F. Where is the copy filed? (If not filed, enter zero .)

1. In desk
2. In file cabinet
3. In security container
4. In hanging file
5. On open shelf file
6. Other file equipment

(25)

G. What is done when the report is filed? (If not filed, enter zero .)

1. Replace the old report with the new report.
2. Just add the new report to the file.
3. Insert segments or pages of the new report among other documents.

(26)

H. How long is this copy of the report kept?

1. It is not kept.
2. Until a replacement is received.
3. Less than one year, but kept after replacement is received
4. One to two years.
5. Over two years.
6. Until disposal is authorized.

(27)

I. How many (linear) inches of storage space does an average copy of the report occupy? (How thick is the report?)

1. Less than one inch
2. One to two inches
3. Two to six inches
4. Over six inches

(28)

J. On what size paper is this copy of the report? (The size of the copy you use.)

1. 8 1/2" by 11" or 8" x 10 1/2" (letter size)
2. 11" by 14" (standard computer printout)
3. Other

(29)

K. What is the maximum number of people using this copy of the report?

(30)	(31)

Is the copy shared:

1. By dividing a single copy into sections and distributing the sections among the users?
2. By passing this copy from user to user as required?
3. By being centrally located?
4. Copy is not shared.

(32)

M. How often must you wait to use copy while someone else is using it?

1. Never
2. Occasionally
3. Frequently

(33)

N. How often is this copy of the report used? (If shared, total for all users.)

1. All day.
2. Daily, one or more times per day.
3. Not daily, but one or more times per week.
4. Less than once per week.
5. Never

(34)

O. When you use this copy of the report, how long do you use it?

1. Less than five minutes per use.
2. Five minutes to an hour per use.
3. Over an hour at each use.
4. None of the above.

(35)

P. Do you ever use this copy of the report to: (Indicate 1 - Yes or 2 - No for each item.)

1. Compare it with other reports.
2. Compare pages of this report with each other.
3. Make notes, entries or marks.
4. Send outside the BASOPS system.

(36)

(37)

(38)

(39)

Q. If notes are made on this copy, are they used:

1. To temporarily update or correct for your reference?
2. To submit changes for the next report (turnaround document)?
3. To add information or emphasis for your own use?
4. No notes are made.

(40)

R. Where is this copy of the report used? (Enter 1 - Yes or 2 - No for each item.)

1. Office (less than 8 persons)
2. Office (8 or more persons)
3. Central file area
4. Warehouse
5. Garage/motor pool
6. Vehicle
7. Maintenance area
8. Field conditions
9. Garrison conditions
10. Laboratory

(41)

(42)

(43)

(44)

(45)

(46)

(47)

(48)

(49)

(50)

S. Do you make additional copies of: (Enter 1 - Yes or 2 - No for each item.)

1. Selected pages of the report?
2. The entire report?

(51)

(52)

T. Approximately how many pages are copied per month?

(53)	(54)	(55)

U. Have you ever used any kind of microfilm/microform before?

1. No
2. Yes, roll film
3. Yes, microfiche
4. Yes, more than one format

(56)

V. Do you have a microfilm reader or reader/printer available to you?

1. Yes, roll film reader
2. Yes, microfiche reader
3. Yes, roll film reader/printer
4. Yes, microfiche reader/printer
5. Yes, other type
6. Yes, more than one type
7. No, none available
8. Don't know

(57)

W. Do you know how to use a microfilm viewer/printer?

1. Yes, roll film reader
2. Yes, microfiche reader
3. Yes, roll film reader/printer
4. Yes, microfiche reader/printer
5. Yes, other type
6. Yes, more than one type
7. No, don't know how to use any

(58)

X. Do you feel this report could be used on microform? (Explain your answer in the Remarks block.)

1. Yes

3. No

2. Maybe

4. No opinion

(59)

Transaction Code

2

(79)

Z. Card Number

2

(80)

REMARKS

INTRODUCTION: The BASOPS system is being studied to determine the feasibility of converting some BASOPS paper output to Computer Output Microform (COM). This study is called the Computer Output Microforms Program and Concept Study (COMPACS). The information requested on this COMPACS Data Collection Sheet will describe how BASOPS reports are used and stored, and identify users' requirements and problems. The information will help the COMPACS group evaluate the impact of converting the report to COM.

INSTRUCTIONS: Please answer each question carefully and as accurately as possible. Do not omit a question; enter the answer that most nearly applies. You may make comments in the space provided under Remarks.

EQUIPMENT SPECIFICATION GUIDELINES FOR COMPUTER
OUTPUT MICROFILM RECORDERS

1. Purpose. This guideline contains specifications to be used in the procurement (lease or purchase) of alphanumeric computer output microfilm (COM) recorders.
2. Applicability. This guideline applies to all elements of the Department of the Army.
3. Reference. AR 340-22, The Army Microforms Program.
4. Scope. The specifications and definitions contained in this guideline may be used and made a part of all procurement actions for alphanumeric COM recorders. These specifications cover:
 - a. Off-line (i.e., equipment not cable-connected to the computer) COM recorders, 16mm through 105mm, without a front-end reformatter (i.e., mini-computer).
 - b. Off-line COM recorders, 16mm through 105mm, with a front-end reformatter.
5. Definitions. In order to assure unanimous interpretation of the proposal or contract the following definitions will be used:
 - a. Alphanumeric. Characters which may be letters of the alphabet, numerals, or other symbols such as punctuation marks.
 - b. BPI. Bits per inch.
 - c. Downtime. Time (chargeable) caused by equipment malfunctions. Downtime begins when the vendor is notified of the equipment malfunction and ends when the device is again operable.
 - d. Effectiveness level. A percentage figure determined by dividing the total productive time (time used) by the sum of total productive time and the downtime (lost productive time) less travel time (not to exceed 2 hours per malfunction) multiplied by 100.
$$\frac{\text{PRODUCTIVE TIME}}{\text{PRODUCTIVE TIME} + \text{DOWNTIME} - \text{TRAVEL TIME}} \times 100 = \text{EFFECTIVENESS LEVEL}$$
 - e. Film frame. The area of film housing one micro image. Film frame is analogous to a computer page with 132 characters per line and 64 lines per page.

f. Forms overlay. The ability to superimpose a pre-printed form over the film frame.

g. Principal period of maintenance (PPM). Any 8 consecutive hours, Monday through Friday, during which maintenance is performed at no cost to the government except for the contractual predetermined fixed rate.

h. Remedial maintenance time. Time used for maintenance other than preventive maintenance, from the time the equipment malfunctions until the equipment is returned to service ready for use.

i. Preventive maintenance time. Time used for preventive maintenance, regardless of when performed.

j. Non-PPM - Maintenance performed at periods outside the PPM.

k. Productive time. Time when the equipment is used by the installation in an operable state.

l. Record. Related information stored in an intelligible form, composed of one or more fields of data.

m. Reduction ratio. (COM) The linear measurement ratio of a simulated computer page to the exposed microfilm image of the simulated computer page.

n. Terms and conditions made available to the government in response to this RFP will not be less than that stated in the vendor's Federal Supply Schedule (FFS).

6. Equipment Requirements (General). The following requirements will be included as applicable:

a. Producing 16mm microfilm at a 24:1 reduction ratio in either comic or cine mode to National Microfilm Association (NMA) Standard MS2-1973, Format and Coding Standards for computer output microfilm.

b. Producing 105mm microfiche at a 48:1 reduction to Military Specification, MIL-F-80242, Military Specifications, Film Microfiche 48X.

c. Providing forms overlay.

d. Achieving a throughput rate of 10,000 lines per minute with 132 characters per line and 64 lines per frame.

e. Offering a film capacity of not less than 200 feet (105mm) 400 ft (16mm) in the supply and take-up magazines.

f. Providing for attachment and removal of film canisters to the camera in a day-light environment. Film supply canisters to be loaded from larger film rolls will be permitted to use black bag technique or darkroom.

g. Providing a minimum of 64 single spaced print lines per frame, with not less than 132 printable characters per line, utilizing the National Microfilm Association (NMA) standard MS2-1973 (Format and Coding Standards for Computer Output Microfilm) Section 5.

h. Re-creation of an individual fiche without refilming the entire job.

i. Automatic halt of operation upon detection of a malfunction which would cause defective microfilm recording or, processing e.g., microfilm camera door open, film supply exhausted, film break, temperature range exceeded, form flash failure, no film advance, or related malfunction.

j. Error detection, such as errors in reading character bit data from tape, excessive number of characters in a line, and excessive number of lines per frame. The error detection scheme must provide automatic halting of the system when the last character of the block of records in which the error occurred has been recorded. Upon halting, a capability should be provided to void, refile and/or indicate error location on the erroneous frame and restart.

k. Produce an audit in chronological sequence of each action taken. The audit must include, as a minimum, frame and fiche counts per job.

7. Software Requirements (General). The following requirements will be included, as applicable, for a COM using host computer software:

a. Producing microfiche with at least one line of eye readable title from fixed or variable fields from data input by the operator, or from input data contained in the first and last frames of the fiche, and a fiche sequence number which will be placed in the title area of each fiche located above row A.

b. Producing an index with row and column identification for each frame on each microfiche to be produced at the bottom right frame of the fiche from fixed or variable data contained in the input records as directed by operator input. These indices must accommodate 15 alphanumeric characters from each frame in the index.

c. Producing a fiche break based on variable title data.

d. Formatting for COM on the host computer, utilizing output data recorded on 1/2" seven track, magnetic tape at 556/800BPI, and nine

) track tape at 800/1600BPI(PE). The input records will be fixed or variable blocked in either print image, single or multiple report writer, created on the following computer(s):

e. In the event of a COM recorder software change is necessary to modify any of the requirements contained in paragraphs 7a through 7d above; this change can only be made at the government location. The capability to make these changes must permanently reside at the government location. This capability can be provided on either the COM recorder or on the government host computer via a recompile of software. The COM software will be maintained by the vendor.

f. In order to support the data produced on the various computers indicated in paragraph 7 above, the COM will require software which can be modified. It is necessary to indicate the method proposed to modify the COM software, including: (a) the specific host computer types that could be utilized for the vendor assembler/compiler software if applicable, (b) vendor supplied software which could be used on the COM without modification on a host computer, (c) any alternate method.

8. COM Requirements (General). The following requirements will be included, as applicable for a COM utilizing a front-end reformatter:

) a. Producing microfiche with at least one line of eye readable title from fixed or variable fields from data input by the operator, or from input data contained in the first and last frames of the fiche, and a fiche sequence number which will be placed in the title area of each fiche located above row A.

b. Producing an index with row and column identification for each frame on each microfiche to be produced at the bottom right frame of the fiche from fixed or variable data contained in the input records as directed by operator input. These indices must accommodate 15 alphanumeric characters from each frame in the index.

c. Producing a fiche break based on variable title data.

d. Formatting for COM, independent of the host computer, utilizing input data recorded on 1/2" seven track, magnetic tape at 556/800BPI, and nine track, magnetic tape at 800/1600BPI(PE). The input tapes will be fixed or variable blocked in either print image, single or multiple report writer, created on the following computer(s):

e. In the event of a COM recorder software change is necessary to modify any of the requirements contained in paragraphs 8a through

8d above; this change can only be made at the government location. The capability to make these changes must permanently reside at the government location. This capability can be provided on either the COM recorder or on the government host computer via a recompile of software. The COM software will be maintained by the vendor.

f. In order to support the data produced on the various computer(s) indicated in paragraph 7 above, the COM will require software which can be modified. It is necessary to indicate the method proposed to modify the COM software, including (a) the specific host computer types that could be utilized for the vendor assembler/compiler software if applicable, (b) vendor supplied software which could be used on the COM without modification on a host computer, (c) any alternate method.

9. Vendor Support Requirements. In order to meet the needs of the Army, the vendor will provide the following:

a. Programmer training. Programmer training will be provided on the specific equipment selected to not less than six personnel at each location to assure capability to develop and support systems on the equipment. This training is to be completed not less than 15 days before installation of the equipment at each location.

b. Operator training. On-the-job training will be provided to not less than six operators at each location to assure operational competence. Operational competence will be determined by mutual agreement between the installation and the vendor. This training is to be completed by the time each system is determined to be operational.

c. Two sets of complete documentation will be provided at each location to allow for orientation on the equipment proposed.

d. Program development and testing. Prior to installation of equipment the selected vendor must make available 20 hours of test time. This testing must be performed on a configuration of equipment which, in all aspects, is equivalent to the one proposed, beginning 30 days after award of the contract. In addition, the vendor must waive rental until such time as the equipment has been accepted by the government as meeting the specifications of paragraph 6 and 7 above. The time for which the equipment is made available to the government will be no less than stated in the vendor's Federal Supply Schedule (FSS).

e. Systems analysis and programming support.

(1) The selected vendor must agree to provide a minimum of 40 manhours of qualified systems analysis support and/or an equivalent of qualified

) programming support at each location to assist the government in the review, development, programming, and implementation of existing and new applications.

(2) The support described above must be available no later than 30 days after acceptance of the delivery order. The amount of this type of support offered by the vendor will be no less than provided by the applicable vendor's FSS.

f. Maintenance.

(1) Preventive maintenance (PM) will be performed, and the PPM will be established, at a time mutually agreeable to the installation and the vendor.

(2) The vendor shall keep the equipment in good operating condition and be responsive to the maintenance requirements of the government.

(3) On-call maintenance is desirable. The maximum elapsed time between notification of the vendor's representative of equipment malfunction and arrival of competent maintenance personnel at the government site may not exceed two hours.

(4) The vendor shall complete repairs or replace devices within 24 hours after notification that service is required. Failure to comply with this requirement will result in deductions of rental charges on the basis of 1/30th of the monthly rate for each day a machine is inoperative. Reduction for inoperative periods less than one day after initial 24 hours will be prorated. If the equipment is purchased, the deductions will be made against the monthly recurring maintenance charges.

(5) Anytime the COM unit fails to produce film to MIL-F-80242, and NMA-MS-2-1973 the unit will be considered malfunctioning and subject to vendor maintenance.

g. Spare parts. Spare parts shall be maintained at the government location in sufficient quantities to insure compliance with the requirements of paragraph 9f above. Space for the storage of these parts will be provided by the government.

h. Cost of consumables. The vendor must provide the available source of all consumables. If the vendor is the sole source, all costs of consumables must be stated.

10. Demonstration. Prior to award of contract, the vendor must satisfactorily complete an operational demonstration of all equipment, software and systems capability proposed in satisfaction of the requirements of these specifications.

11. Acceptance. The COM recorder shall perform at a 90% effectiveness level for 30 days before acceptance by the government.

12. Specifications, Standards and Formats. In order to maintain standardization in the production of microforms, the following will be included, as applicable, in all contracts:

a. Mil-Std-399, Microform Formats.

b. Mil-F-80242, Film Microfiche 48X.

c. NMA, MS2-1973, Format and Coding Standards for Computer Output Microfilm.

13. Cost Information. Cost data must be provided for the following:

a. Basic monthly rental for 1, 2, 3, 4, and 5 year lease plans.

b. Additional rental charges for extra usage based on hours, frames, or any other factor.

c. Initial purchase cost.

d. Rental credits applicable to purchase.

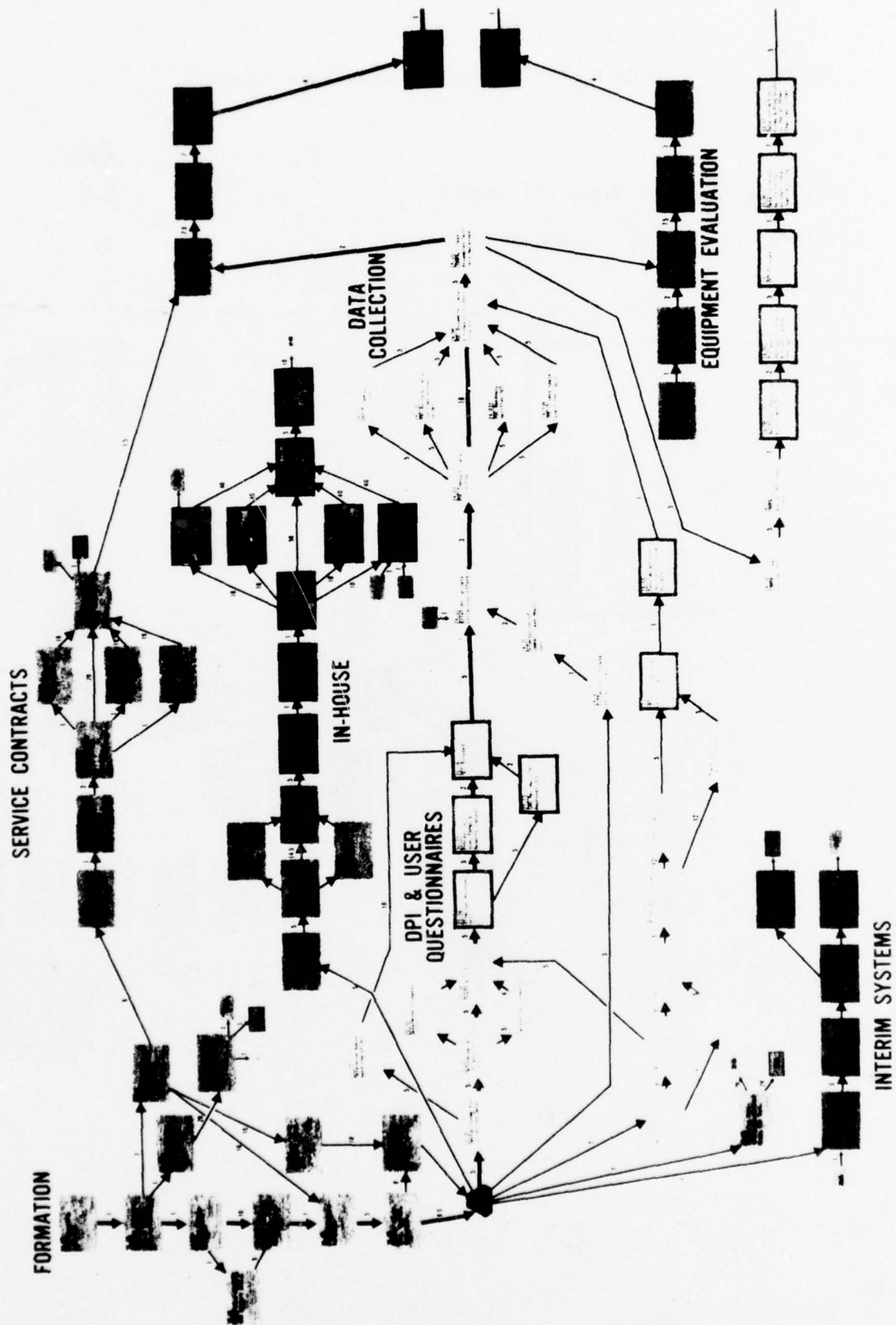
e. Penalty if equipment is purchased prior to the end of a specified lease period.

f. Remedial and minimum and maximum on-call maintenance charges for both a purchased or leased system.

ANNEX D, PERT Chart and Milestone Schedule

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Inclosure 1 - PERT Chart (3 pages)	D-2
Inclosure 2 - Milestone Schedule	D-5

COMPACS SCHEDULE



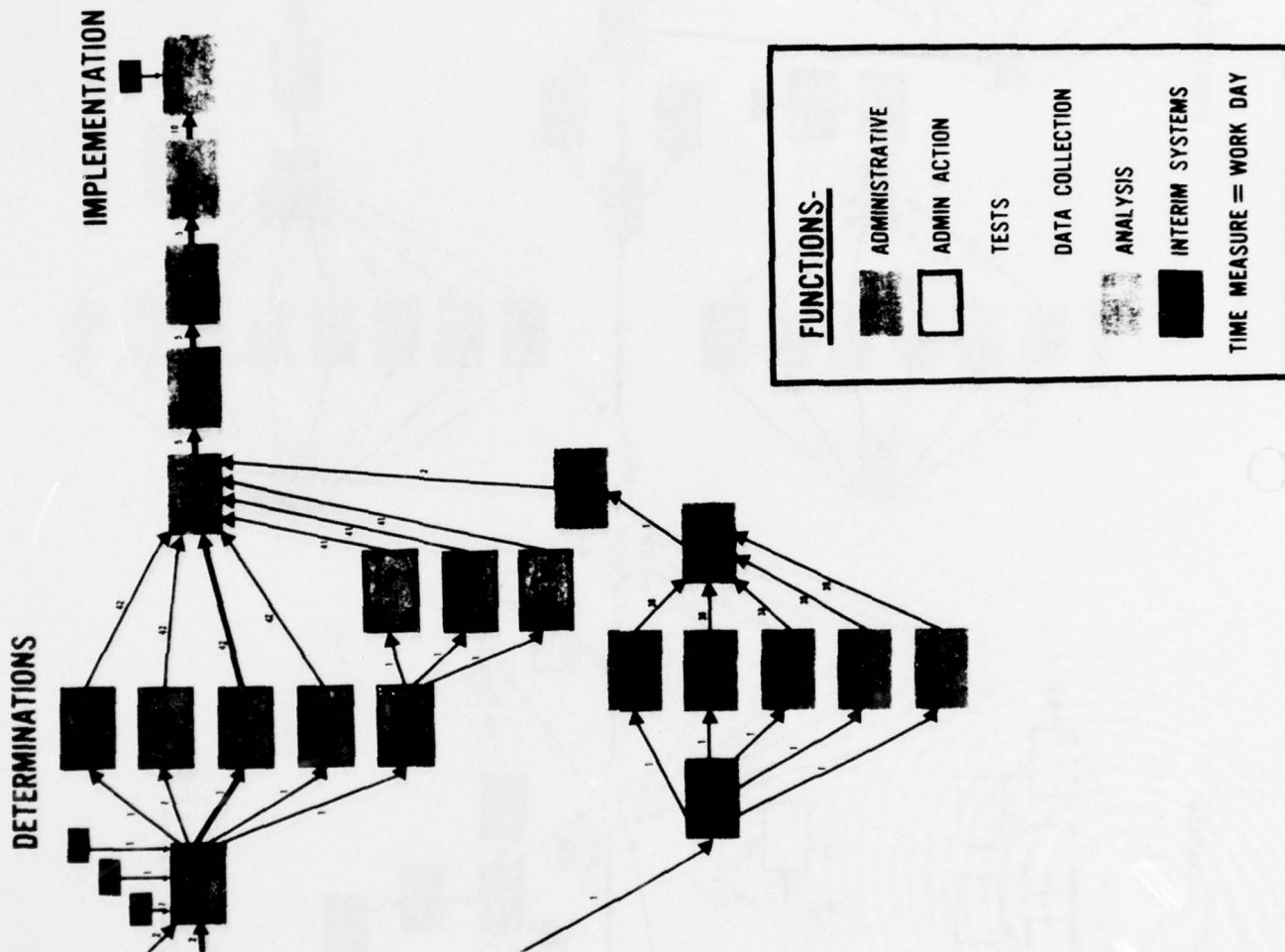
DEVELOP TEST CAPABILITIES

ANALYSIS OF TEST RESULTS

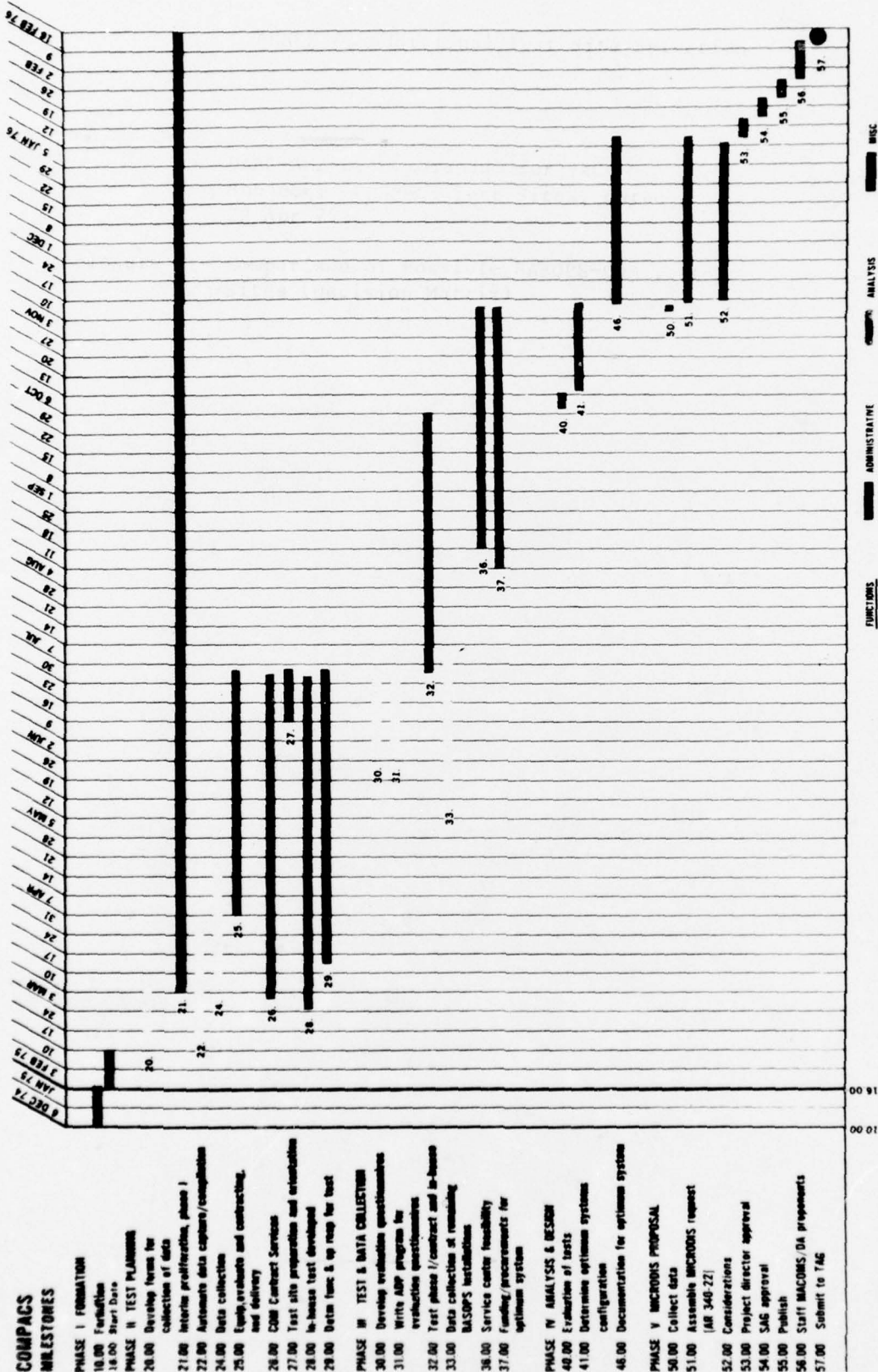
FUNDING

TESTS

SERVICE
CENTER
STUDIES



COMPACS MILESTONES



ANNEX E, Additional Test Site Selection

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Inclosure 1 - Comparison of Possible BASOPS-COM Test Sites (Decision Matrix)	E-5



DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20314

DAAG-AMZ-C

MEMORANDUM THRU: DIRECTOR OF ADMINISTRATIVE MANAGEMENT, TAGCEN

FOR: THE ADJUTANT GENERAL

SUBJECT: COMPACS Test Sites

*OK, subject to
consideration of
FORSCOM & SAG
23 Apr 75*

1. During the COMPACS SAG on 10 April 1975, its membership was advised that SAILS, due to a delay in implementation of Forts Huachuca and Lewis, could only be tested at Fort Sam Houston. While this was not initially recognized as a test problem by TAGO or ODCSLOG, information surfaced prior to the SAG that a COM test of SAILS at only Fort Sam Houston would be unrepresentative and inadequate. Accordingly, the SAG directed the COMPACS Group to explore the feasibility of adding another test site at which SAILS, as well as SIDPERS and STANFINS, could be more representatively tested, consider substituting such an installation for one of the currently designated test sites, and evaluate other possible alternatives which would insure that all tests conducted would be representative and thereby attain a greater degree of validity.

2. Inherent in the SAG's stated mission was the implied mission of determining the mode of COM to be adopted at an additional or substituted installation. These modes consist of a COM service bureau, an in-house capability using a mini frontend computer (reformatter), and an in-house capability without reformatter. At Forts Sam Houston and Lewis, existing COM service bureau contracts were applied as the test mode. Since Fort Huachuca is remotely located from a population center and little governmental and private sector experience exists in operating with a reformatter, that installation provided an excellent test bed; thus, an in-house capability using a reformatter will be employed as the test mode. However, because of the limitation to three test sites, a sacrifice was made to exclude from active testing the in-house non-reformatter mode.

3. FORSCOM provided \$132,000 in FY 75 funds to acquire equipment, supplies and services in support of its prototype test sites. FY 76 funding will be provided by HQDA (TAGCEN) for COMPACS testing. FORSCOM has not obligated any significant portion of its FY 75 test site funds to date, and has informally indicated that if an additional test site



DAAG-AMZ-C

SUBJECT: COMPACS Test Sites

22 APR 1975

is added, necessary funding could be provided from within existing and year-end funds. FY 76 TAGCEN funds, when available, could be reprogrammed to accommodate the COMPACS portion of test costs.

4. The BASOPS Extension Listing at TAB A shows those FORSCOM installations currently employing SAILS. An analysis has determined that Forts Bragg, Carson, and Hood have displayed extensive experience in SAILS and have major units located thereon. A discussion of specific attributes of these installations as a prototype test site for BASOPS-COM is at TAB B. A review of the chart at TAB B reveals that, of the three possible additive or substitutive test sites, Fort Bragg is the least desirable, while both Forts Hood and Carson compare favorably. With respect to Fort Hood, in addition to being inundated with past, on-going, and programmed tests, it has a pending request for interim COM, which, when approved, would bring another installation "on-line" with respect to COM. Thus, plus burdening Fort Hood with another test, its selection would result in one less installation going to COM and not maximize the monetary savings associated with COM at an early date. Since ODCSLOG, the proponent of SAILS, prefers Fort Carson, the installation has extensive experience with logistical systems, and it would be possible to involve "remote" locations satellited on Fort Carson for support - namely, Fitzsimons Army Hospital and Rocky Mountain Arsenal - its selection as a test site is sound.

5. The elimination of Fort Lewis as a test site is considered highly undesirable. Factors for its retention include the on-going data collection effort that is being conducted in a high priority manner, the possible impairment of its existing service capability by reverting to an interim COM installation, and the "let-down" which would result among personnel strongly motivated toward the adoption of COM there.

6. Based upon the foregoing, recommend that:

- a. Fort Carson be approved as a prototype test site for BASOPS-COM, utilizing an in-house capability without a reformatter (the only operational mode not currently being tested).
- b. Fort Lewis be retained as a test site.
- c. CSM 74-340-108 and other appropriate COMPACS directives be amended to reflect Fort Carson as a test site.

DAAG-AMZ-C

SUBJECT: COMPACS Test Sites

22 APR 1975

7. This action has been coordinated, in draft, with the interested commands, agencies, and offices as indicated below.

8.

2 Incl
As stated

CHARLES T. SEARCH
LTC (P), AGC
Project Manager, BASOPS-COM

Coordination:

DMIS GABRIEL (OL GS 25 Apr 75)
DCSLOG 2 4/23/75
OCA H. K. R. L. C. S.
MILPERCEN 2 4/23/75
DAAG-CO 2
DAAG-SD 2
DAAG-AMS 2

CDR, USAFORSCOM-COL J.E. Shillingburg, DMIS -telephonically

COMPARISON OF POSSIBLE INVESTMENT TEST SITES

CRITERIA		FORT BRAGG		FORT CARSON		FORT HOOD	
1. COMPUTER CONFIGURATION		IBM 360 M50 (1)		IBM 360 M40		IBM 360-M50 AND IBM 1401 (2)	
2. EXPERIENCE FACTOR							
a. SAILS		APRIL 74		PROTOTYPE MARCH 73		MARCH 74	
b. SIDPERS		SEPTEMBER 74		NOVEMBER 73		APRIL 73	
c. STANTINS		SEPTEMBER 71		MARCH 73		OCTOBER 71	
3. SAILS TRANSACTION VOLUME		243,700		190,500		290,000	
4. DISTRIBUTION		INSTALLATION/DIVISION		INSTALLATION/DIVISION		INSTALLATION/MULTI-DIVISION	
5. TROOP POPULATION SUPPORTED (APPROX)		23,700		25,000		50,000	
6. ATTITUDE FACTORS		DESIRES COM - INTERESTED		DESIRES COM - HIGHLY INTERESTED		DESIRES COM - HIGHLY INTERESTED	
7. TEST SITE LOCATION		CLOSE TO WASHINGTON, DC. DISTANT FROM GEOGRAPHICAL TEST CENTER. MAY REQUIRE SEPARATE RESOURCES AND/OR ADDITIONAL AIR TRAVEL TO TEST CENTER.		WITHIN GEOGRAPHICAL TEST CENTER. FURTHER FROM FT SAN HOUSTON THAN FT HOOD. WILL REQUIRE ADDITIONAL LIMITED AIR TRAVEL WITHIN TEST CENTER.		WITHIN GEOGRAPHICAL TEST CENTER. CLOSER TO FT SAN HOUSTON THAN FT CARSON. WILL NOT REQUIRE ADDITIONAL AIR TRAVEL WITHIN TEST CENTER. WILL AFFORD DUAL TEST SITE MONITORING BETWEEN FT HOOD AND FT SAN HOUSTON VIA VEHICLE TRAVEL.	
8. TRAVEL COSTS (1 INDIV ROUND TRIP FROM WASHINGTON, DC TO TEST SITE)		\$86.00		\$232.00		\$232.00	
9. CURRENT/PLANNED TESTING		COPPER, 15 SEPTEMBER 75 (3)		NONE		FM-287, 28 APR/15 MAY 73 (4) FM-292-A, PRICH TO JANUARY 76 (5) CONTINUING PARTICIPATION IN MASTER (6)	
10. VENDOR HARDWARE/MAINTENANCE AVAILABILITY FOR IN-HOUSE COM		YES		YES		YES	
11. CONTRACT SERVICES AVAILABILITY		NO		YES, DENVER - 65 MILES		YES, AUSTIN - 50 MILES	
12. FUNDING AVAILABILITY		FY 75 (FORSCOM) FY 76 (TAGCEN)		FY 75 (FORSCOM, IF REQUIRED) FY 76 (TAGCEN)		FY 75 (FORSCOM, IF REQUIRED) FY 76 (TAGCEN)	
13. NUMBER OF DAYS TO OBTAIN IN-HOUSE COM HARDWARE		30 DAYS		30 DAYS		30 DAYS	
14. NUMBER OF DAYS TO OBTAIN CONTRACT SERVICES		N/A (SEE LINE 11)		60 - 90 DAYS		60 - 90 DAYS	
15. TEST SITE READINESS		WILL REQUIRE APPROX 30 DAYS FOR PREPARATION		WILL REQUIRE APPROX 30 DAYS FOR PREPARATION		TOTALLY PREPARED NOW	
16. REMOTE SITE FACTORS		NO		YES, FITZSIMONS ARMY MEDICAL CENTER AND ROCKY MOUNTAIN ARSENAL		NO	
17. MILPERCEN JUDGEMENT		ACCEPTABLE		FAVOR		ACCEPTABLE	
18. OCA JUDGEMENT		ACCEPTABLE		ACCEPTABLE		ACCEPTABLE	
19. DCSLOG JUDGEMENT		LEAST ACCEPTABLE		FAVOR		ACCEPTABLE	
20. DMIS JUDGEMENT (7)		ACCEPTABLE		LEAST ACCEPTABLE		FAVOR	

- (1) Less 1 CS3 DFI
 (2) Less 3 CS3 DFI's
 (3) Consolidation of Inv/Personnel
 (4) Evaluation of Division Near Echelon (2nd Armed Division)
 (5) Application of Word Processing in TOE Units (2nd Armed Division)
 (6) N/A - Not in Army
 (7) Based on number of Inv/Personnel

ANNEX F, Fort Carson Equipment Selection

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Inclosure 3 - Withdrawn from Final Report	
Inclosure 4 - Withdrawn from Final Report	



DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL AND THE ADJUTANT GENERAL CENTER
WASHINGTON, D.C. 20314

DAAG-AMZ-C

16 MAY 1975

MEMORANDUM FOR RECORD

SUBJECT: Selection of Equipment for Test at Fort Carson

1. The purpose of this memorandum is to briefly record the evaluative process used in determining the COM equipment which would be installed at Fort Carson for the COMPACS.
2. Between the time that Fort Carson was notified of its selection as a COMPACS test site and the arrival of members of the COMPACS team, the Fort Carson COMPACS Point of Contact (MISO) and interested personnel contacted vendors in the area capable of providing the required equipment. The contact took the form of telephone calls, visits to locations where vendor equipment was installed and briefings or presentations at Fort Carson and vendor offices. Based upon the foregoing, vendors evidenced an active interest in supplying the required equipment telephonically to the POC or through the submission of a proposal.
3. Upon the arrival of the COMPACS team at Fort Carson, it discussed the proposals with the MISO and interested parties, had personal contact with visiting vendors, telephonic conversations with other vendors, and considerable contact with GSA representatives. Throughout the foregoing, emphasis was placed upon the availability of equipment and supplies from the GSA schedule, the ability to provide customer engineer support, availability of back up support, training programs offered, delivery in time for the start of the test and cost of the equipment. Of particular technical import was the vendor capability of developing and providing the supporting software for titling and indexing. Attached at Inclosure 1 is a detailed discussion of software problems relating to SAILS.
4. In addition to the vendors named in the comparison matrix at Inclosure 2, the following were also contact/considered, but not pursued for the reason indicated:



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16 MAY 1975

SUBJECT: Selection of Equipment for Test at Fort Carson

a. Bruning: While highly regarded and recommended by several COM vendors, the Bruning duplicator is not on GSA schedule for FY 75 and the vendor and GSA are negotiating about whether it will be placed on the FY 76 schedule. Vendor suggested preparation of waiver to GSA schedule; however, Project Manager, BASOPS-COM declined to pursue such a course since the COMPACS endeavor is involved in a test only, and it is strongly believed that all equipment and supplies required for the test should be obtainable from the GSA schedule.

b. Scottgraphics: While 712 duplicator is not on FY 75 GSA schedule, it will be for FY 76; however, the film, which is vendor-unique, will not be on the FY 76 schedule. NCR is in the process of negotiating a marketing arrangement with Scottgraphics to market its duplicator and contemplates concluding the agreement toward the start of the last calendar quarter of 75. However, as indicated in paragraph 3a above, non-availability from GSA schedule caused the end of further vendor consideration.

c. Xidex Corporation: Xidex Corporation has a duplicator on the GSA schedule; however, the firm was unable to provide customer engineer support at Fort Carson and was unable to establish an arrangement whereby another vendor in the area would maintain the duplicator on behalf of Xidex Corporation.

5. Review of the matrix comparison at inclosure 2 reveals that:

a. CALCOMP was unable to provide the necessary customer engineer support, did not have back up support in the immediate area, was limited on the number of index positions, was unable to modify its software to accommodate the nuances of the SAILS "floating" PCN, and did not include a maintenance cost in its proposal.

b. Eastman Kodak's software was not oriented toward a disk operating system (DOS) - such as are the operating systems of BASOPS. Additionally, the cost proposals submitted were the highest...even striking an average between the limited and unlimited usage proposals.

c. Bell and Howell's proposal contained costs considered excessive when the costs of both a processor and a duplicator, which would have to be obtained from another vendor, were included.

d. DatagraphiX offered the only unitized or total system; however, in COM operations this is not an over-riding factor. Additionally,

16 MAY 1975

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SUBJECT: Selection of Equipment for Test at Fort Carson

DatagraphiX, whose equipment (recorder with a mini frontend computer, processor, and duplicator) is being utilized at the in-house COMPACS test at Fort Huachuca, was the only vendor that offered a duplicator which could meet the criteria for the test.

e. NCR has an unusual recorder/processor operation in that both are combined into a single piece of equipment and has a widely dispersed operation of service centers or bureaus. These service centers or bureaus undoubtedly will be utilized to some extent by various BASOPS installations upon implementation of BASOPS-COM. When the cost of the NCR recorder/processor was coupled with that of the DatagraphiX duplicator, such resulted in the lowest cost of the vendors evidencing a positive interest.

In view of the foregoing, a decision was made to obtain the following equipment for the COMPACS test at Fort Carson:

- a. Recorder/processor: (See Incl 3)
 - b. Duplicator: (See Incl 4)
6. Participating in the foregoing evaluation and decision were members of the Administrative Systems Division (DAAG-AMS-M) and COMPACS Group as well as concerned personnel from Fort Carson.
7. Based on the decision, actions incident to the procurement of the specified equipment were initiated by the COMPACS Group through USAFORSCOM subsequent to coordinating the final decision with the Fort Carson POC and the FORSCOM Coordinator.

8.

4 Incls
as

CHARLES T. SEARCH
LTC(P), AGC
Project Manager, BASOPS-COM

M. W. H.

SUBJECT: Prototype Systems Reformat Requirements

1. Problem Definition:

a. Each of the major systems to be tested has, imbedded in a number of the output reports, such items as special forms or punched card output which are not suitable for the microfiche concept. In addition, a sizeable number of reports lend themselves to "stocking" on single fiche rather than printing each report on hard copy or creating a partially utilized fiche with an uneconomically small report content.

b. The SAILS system is not adaptable to any vendor software due to the lack of consistency in the position of the PCN identifiers. These identifiers vary in report position from position eighty (80) of the header record to position one hundred eighteen (118). This situation created the requirement to search the entire area to determine the report description. In several cases the report number failed to follow the normal format, in that an extra space was found between the constant "PCN" and the actual identifier.

c. Based on the short time frame available for preparation for conversion, and because CSC response was inadequate to meet the prototype suspense, a local system to reformat the identifying data field into a static header position was required.

2. Recommended Solution:

a. A single cobol program system has been developed and thoroughly tested at Fort Carson which affords a solution to the defined problems for the SAILS system. Two additional programs are under development to accommodate the less complicated problems inherent in the STANFINS and SIDPERS systems. These programs will be completed and tested well in advance of the time required for entering the prototype test.

b. The following is a brief description of the program logic:

(1) A search of each header line is performed to identify the position of the PCN identifier.

(2) Utilizing an easily alterable stored PCN table, the reports to be converted to microfiche are assigned a sort sequence code in positions one hundred thirty four (134) to position one hundred fifty (150) of each report line. This code is formatted as follows:

POSITION - <u>134</u>	<u>135-140</u>	<u>141-150</u>
Group Code	Line Number	PCN Number

Incl 1

(3) An internal sort sequences the reports to be fiched into groups, of those to be "stocked", while maintaining absolute integrity within each report. The Group code permits identification of individual reports or groups based on the use of a single alpha or numeric character.

(4) The reports which are not deemed appropriate for conversion, or those consisting of punched output, are written to a second tape for spooling using the standard CSC spool program. This is accomplished through the simple expediency of omitting these PCNs from the table file. In addition, each punched output header record is altered in position one (1) to display the special card form requirements on the console typewriter.

(5) The reports to be converted to microfiche are written to a second tape. Checkpoint restart capability has been incorporated at strategic points. The original system output spool tapes are left in their original format.

3. Basic System Requirements:

a. Core Requirements: Approximately 35K

b. The daily SAILS cycle for 29 April was selected as a typical cycle for test purposes. This cycle had consumed eleven hours fifty (11:50) of system processing time with a transaction input count of more than fifteen thousand (15,000).

c. Run time for selection, reformatting, and sorting twenty two (22) spool tapes from this average SAILS daily cycle: Approximately one hour forty minutes. For the purpose of this test all reports normally produced on hard copy were considered candidates for microfiche and were written to the fiche tape. Approximately one hundred thirty thousand (130,000) print lines were formatted and sequenced. This conversion run time would be dramatically reduced at smaller installations or as a result of a reduction of reports to be converted to microfiche.

d. Three tape drives and at least two disk workpacs are required.

e. In the event the functional users should elect to retain all of the smaller reports on hard copy (tab paper) and fiche only the larger reports, this program, through console response, permits interruption at any desired point. This would permit either normal spooling or report conversion in the F1 partition while the normal SAILS cycle continued to process in either BG or F2.

f. The PCN Table file can be altered at any time to add or delete candidate reports by using a card input to recreate the table.

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MISO AFZC-IS
Fort Carson, Colorado
(AVN 691) 579-2668/2687

COMPARISON OF VENDORS FOR FORT CARSON

VENDOR---	BELL & HOWELL	CALCOMP	DATAGRAPHIX	EASTMAN KODAK	NCR
1. GSA Availability					
a. Recorder	Yes	Yes	Yes	Yes	Yes
b. Processor	No	Yes	Yes	Yes	Yes
(1) Requires Plumbing	No	No	No	Yes	Integral
(2) Plumbless	Yes	Yes	Yes	No	Yes
c. Duplicator	No	Yes	Yes	Yes	No
d. Supplies					
(1) Vendor Unique	No	No	No	No	Yes
(2) Non-Vendor Unique	Yes	Yes	Yes	Yes	No
e. Customer Engineer Support	Yes (Denver)	No	Yes (On-Site)	Yes (Denver)	Yes (Denver)
2. Back-up Support	Yes (Colorado Springs)	No	Yes (Denver)	Yes (Denver)	Yes (Denver)
3. Training Program	Yes	Yes	Yes	Yes	Yes
4. Ability to Deliver on Time	Yes	Yes	Yes	Yes	Yes
5. Software Compatibility	Yes	Yes (Limited Index)	Yes	No (Not DOS)	Yes
a. SAILS Interface	Yes	No	Yes	Yes (If changed to DOS)	Yes
6. Cost					
a. 30 days	2715	2491*	3163	2854** 4163***	2384
b. 60 days	5430	4982*	6326	5708** 8326***	4768
c. 90 days	8145	7473*	9489	8562** 12,489***	7152
d. Additive	Requires Processor and Duplicator				Requires Duplicator
* No Maintenance price with proposal ** Limited Usage (8 hours per day) *** Unlimited Usage					
Comparison of Prices:	Bell & Howell	CalComp	DatagraphiX	Eastman Kodak	NCR
Recorder	2715	2240(b)	2246	2490(c)	2384
Processor	278(a)	251	342	364	Integral
Duplicator	187(a)	200(b)	575	208(d)	754(e)

(a) Bell & Howell: Has no processor or duplicator on GSA Schedule.

(b) CalComp: No price quote for maintenance, Duplicator on GSA but too slow.

(c) Eastman Kodak: Limited usage plan (8 hour day).

(d) Eastman Kodak: Duplicator too slow.

(e) National Cash Register: Scott 712 not on GSA (75), requires special film-film will not be on 76 GSA Schedule.

ANNEX G, Microfiche Media Test Plan

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DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL AND THE ADJUTANT GENERAL CENTER
WASHINGTON, D.C. 20314

S- 13 October 1975

DAAG-AMZ-C

30 JUN 1975

SUBJECT: COMPACS Microfiche Media Test Requirements

Cdr, 4th Inf Div (Mech) & Fort Carson, ATTN: AFZC-IS
Cdr, Fort Huachuca, ATTN: CC-PA-AM
Cdr, 9th Inf Div & Fort Lewis, ATTN: AFZH-AGA-RM
Cdr, Fort Sam Houston, ATTN: AFZG-IS

1. References: a. HQDA Ltr 340-74-7, 6 Dec 74, subject: Computer Output Microforms Program and Concept Study (COMPACS).

b. HQDA Ltr 340-75-8, 4 Jun 75, subject: Computer Output Microforms Program and Concept Study (COMPACS) Modification (MICRODIS NR 4002-US5C).

c. Reports Control Symbol (RCS): AG-OT-696 and AG-OT-701.

2. COMPACS Microfiche Media Tests will begin at Forts Huachuca, Lewis, and Sam Houston on 7 July, and at Fort Carson on 14 July 1975. A description of the tests and assigned responsibilities are furnished at inclosure 1. All microfiche production at test sites will be documented as specified in paragraph 3. Attachment 1 to inclosure 1 lists the BASOPS reports which will require user and supervisor evaluations in accordance with paragraph 4.

3. Documentation requirements. a. At in-house test sites:

(1) A Production Log - Recorder, DA Form 4388-R, attachment 2 to inclosure 1, will be maintained of all production on the COM recorder throughout the test period.

(2) A Production Log, DA Form 4389-R, attachment 3 to inclosure 1, will be maintained at each film processing, inspection, and duplication station throughout the test period.

b. At all test sites:



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SUBJECT: COMPACS Microfiche Media Test Requirements

(1) A Quality Control Log, DA Form 4390-R, attachment 4 to inclosure 1, will be maintained to record the results of all inspections of master fiche and duplicates.

(2) A Maintenance Log, DA Form 4391-R, attachment 5 to inclosure 1, will be maintained to record all equipment malfunctions and maintenance requirements on the COM recorder and processors at in-house test sites, and duplicators and reader/printers at all test sites.

4. Beginning 15 September 1975, and continuing through the end of the test, the following Evaluation Sheets will be completed at all test sites:

a. A User Evaluation Sheet, DA Form, 4392-R, attachment 6 to inclosure 1, will be prepared by each user of each BASOPS report tested and listed in attachment 1.

b. A Supervisor Evaluation Sheet, DA Form 4393-R, attachment 7 to inclosure 1, will be prepared by the lowest level supervisor of each microfiche user involved in the test.

c. Each user of microfiche will complete an Equipment Evaluation Sheet (Reader), DA Form 4394-R, for each model reader he used during the test period. The POC, or his representative, will conduct selective interviews with at least one user of each model reader. The interviewer will thoroughly question the user about his experience with that equipment and record any remarks, comments, explanation or suggestion made by the user in the remarks block of the evaluation sheet.

5. All DA Forms described in paragraphs 3 and 4 will be reproduced locally on 8 by 10 1/2 inch paper.

6. The POC's after action report will:

a. Include all documents described above.

b. Contain a keypunched card for each evaluation sheet required by paragraph 4.

30 JUN 1975

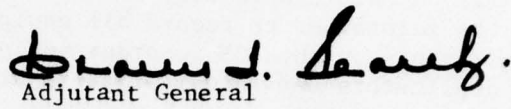
DAAG-AMZ-C

SUBJECT: COMPACS Microfiche Media Test Requirements

c. Provide an 80-80 card listing of all keypunched cards.

d. Be forwarded to HQDA (DAAG-AMZ-C), Forrestal Building, Washington, DC 20314, to arrive NLT 13 October 1975.

BY ORDER OF THE SECRETARY OF THE ARMY:


Adjutant General

1 Incl
as

CF:
Cdr, US Army Forces Command
Cdr, US Army Communications Command

MICROFICHE MEDIA TEST PLAN

1. OBJECTIVES. The objectives of the microform media test are:

- a. To validate those ADPE outputs capable of conversion to microform.
- b. To determine a standard MICRODIS configuration needed to satisfy BASOPS installation requirements.
- c. To identify cost factors for a cost/benefit analysis of a BASOPS/CCM MICRODIS.

2. ASSUMPTIONS. The assumptions as defined in the study directives, are:

- a. Paper costs and shortages will continue to increase.
- b. Requirements to produce BASOPS type reports, using computers, will continue through the next decade.
- c. Costs of filing, storage, and retrieval will not decrease.
- d. CCM is a more economical method of producing and handling large volume, ADP generated information.
- e. The number of reports generated will not significantly decrease.
- f. All BASOPS systems design will continue to be predicated on a core limitation of 128K.

3. TEST LOCATIONS AND SCOPE

a. The test will be conducted at four test sites. Two of these sites, Forts Lewis and Sam Houston will contract with local service bureaus for production of the microfiche. The other sites, Forts Huachuca and Carson will install CCM production equipment in-house, with a mini and non-mini reformatter available respectively. All test sites will use a variety of locally available microfiche viewing and copying equipment.

b. The test will evaluate the production, distribution and use of selected BASOPS reports on microfiche. The list of the reports to be converted for the test is at attachment 1. Certain reports with wide distributions will be tested by selected users only, as indicated in attachment 1. Users of test microfiche will not receive paper copies of the reports during the test; only the microfiche format will be produced for for these users.

c. POC and DPI personnel will evaluate equipment and keep production and distribution records. Users will complete evaluations of the microfiche and equipment as described in the data collection plan.

d. Reports other than those listed in attachment 1, including other BASOPS reports and Command Uniques, may be produced on microfiche during the test period subject to equipment availability after the test production is accomplished. These reports will be included on test production records, but will not be subject to user and supervisor evaluation.

4. RESEARCH QUESTIONS

a. What were the users reactions to the reports converted? (Data source: User evaluation)

b. What production and distribution problems, if any, were encountered with these reports? (Data source: DPI and POC production records)

c. What are user microfiche equipment requirements and preferences? (Data source: User evaluation)

d. What are the production equipment requirements? (Data source: DPI production records, POC observation)

e. What are the baseline requirements for an in-house system? (Data source: Selected DPI - Forts Huachuca and Carson)

f. What are the baseline requirements for a service bureau system? (Data source: Selected DPI - Forts Lewis and Sam Houston)

5. DATA COLLECTION PLAN

The following questions will be incorporated on evaluation sheets to be completed during the final portion of the test. The questions for user, supervisor and equipment evaluations will be completed by all of the appropriate personnel affected by the test at each site. Selected equipment evaluations will be conducted as structured interviews with representative users to be selected by the POC. One or more users of each reader tested will be interviewed. The POC report will be prepared in the prescribed format, using the logs provided as attachments 2, 3, 4 and 5. The Evaluation Sheets, attachments 6, 7, and 8, will be distributed separately.

a. Questions for User Evaluations

(1) Did the report on microfiche arrive:

- (a) Faster than the paper report?
- (b) In about the same time as the paper report?
- (c) Slower than the paper report?

- (2) When the microfiche report arrived, what did you do with it?
- (a) Kept it.
 - (b) Forwarded it to another organization.
 - (c) Threw it away.
- (3) Did you send the microfiche report outside the installation?
- (a) Yes
 - (b) No
- (4) If you sent the report outside the installation, how was it sent? (If not sent, enter "0").
- (a) A paper copy was created and sent instead of sending the microfiche.
 - (b) The microfiche copy was sent.
 - (c) A duplicate microfiche copy was sent.
- (If the report is not kept, you may skip the remaining questions).
- (5) Where did you keep the microfiche?
- (a) In specialized microfiche container. (File box, binder, etc.)
 - (b) In locking file.
 - (c) In desk drawer.
 - (d) In makeshift file device. (Card file, etc.)
 - (e) In microfiche viewer.
 - (f) With personal papers. (In briefcase, pocket, etc.)
 - (g) Other.
- (6) What was the total number of people sharing this microfiche copy of the report? (Example: If not used, enter "00", if one user, enter "01"; etc.)
- (7) How was this microfiche report shared? (If not shared, enter "0").
- (a) By passing the complete report from user to user as required.
 - (b) By placing the report in a central location.
 - (c) For reports of more than one fiche, by providing separate fiche containing specific segments of the report to each user.
- (8) How often did you have to wait to use this microfiche report while someone else was using it? (If not used, enter "0").
- (a) Never.
 - (b) Less than half the time.
 - (c) Half the time.
 - (d) More than half the time.
 - (e) Always.

- (9) How often was this microfiche report used? (If not used, enter "0").
- (a) All day.
 - (b) Daily one or more times per day.
 - (c) Not daily but one or more times per week.
 - (d) Less than once per week.
- (10) On the average, how long was this microfiche report used each time? (If not used, enter "0").
- (a) Less than five minutes.
 - (b) Five minutes to an hour.
 - (c) Over an hour.
- (11) If you compared pages of this microfiche report with another microfiche report, which type of comparison do you think easier? (If you did not make comparisons, enter "0").
- (a) Comparison of two paper reports.
 - (b) Comparison of two microfiche reports.
 - (c) No difference between comparison of paper with paper reports and microfiche with microfiche reports.
- (12) If you compared pages of this microfiche report with pages of a paper report, which type of comparison do you think is easier? (If no comparisons were made, enter "0").
- (a) Comparison of two paper reports.
 - (b) Comparison of the microfiche report with the paper report.
 - (c) No difference between comparing two paper reports and comparing one microfiche and one paper report.
- (13) In the comparison of pages within the same report, which of the following type of comparison is easier? (If you do not compare pages, enter "0").
- (a) Comparison of pages within a paper report.
 - (b) Comparison of pages within a microfiche report.
 - (c) No difference between comparisons of pages within paper reports and comparison of pages within microfiche reports.
- (14) If you kept notes (updated information) about this microfiche report, did you: (If you did not keep notes, enter "0").
- (a) Make notes on separate pieces of paper kept with the microfiche?
 - (b) Make notes on the envelope the fiche was kept in?
 - (c) Make a paper copy and write on it?
 - (d) Make notes on pieces of paper and on the envelope?
 - (e) Make notes and make paper copies and write on it?
 - (f) All of the above.

(15) Estimate how many microfiche duplicates of the entire report you made during the test.

(16) Estimate how many paper copies of the entire report you made on the reader/printer during the test.

(17) Was the microfiche report: (If not used, enter "0").

- (a) Much easier to use than the paper report?
- (b) Slightly easier to use than the paper report?
- (c) About the same as the paper report?
- (d) Slightly more difficult to use than the paper report?
- (e) Much more difficult to use than the paper report?

(18) Could you find the information you needed: (If not used, enter "0").

- (a) More quickly than with the paper report?
- (b) In the same time as with the paper report?
- (c) More slowly than with the paper report?

(19) The index on the microfiche was: (If you did not use the index, enter "0").

- (a) Very helpful in finding the desired information.
- (b) Helpful in finding the required information.
- (c) Adequate to find the required information.
- (d) Little help in finding the required information.
- (e) No help in finding the required information.

(20) The title on the microfiche was:

- (a) Very helpful in identifying the report.
- (b) Helpful in identifying the report.
- (c) Adequate to identify the report.
- (d) Was little help in identifying the report.
- (e) Was no help at all in identifying the report.

(21) For each of the following items indicate whether you would or would not need it in the microfiche title: Answer each item "1" for yes or "2" for no.

Report name/title

Product control number/Report retrieval code

Report date. (Date report produced)

As of date

Inclusive dates covered by report

Classification

Page Numbers

Fiche Number (i.e., 1 of 4, 2 of 4, etc.)

(22) Was the microfiche you received:

- (a) Positive. (Dark print on light background)
- (b) Negative. (Light print on dark background)

(23) Which would you prefer to use for this report?

- (a) Positive fiche.
- (b) Negative fiche.
- (c) No opinion.

(24) If using the microfiche was difficult at first, did it become easier with practice? (If not used, enter "0").

- (a) Yes
- (b) Not difficult
- (c) No

(25) Do you use other reports on microfiche?

- (a) Yes
- (b) No

(26) Would you like to receive other reports on microfiche?

- (a) I would like to receive all the reports I use on microfiche.
- (b) I would like to receive certain other reports on microfiche.
- (c) I would not like to receive any other reports on microfiche.
- (d) I already received all the reports I use on microfiche.
- (e) I have no opinion.

b. Questions for Supervisor Evaluation

(1) Of the various BASOPS reports produced on microfiche, how many different ones were used by your office?

(2) At what management level were you responsible for the use of these reports?

SIDPERS

SIB
MILPO
UNIT

SAILS

INSTALLATION
COSCOM
THEATER/COMMAND
DEPOT

STANFINS

COMMAND ACCOUNTS OFFICE
INSTALLATION BUDGET DIRECTOR
PROGRAM DIRECTOR
ACTIVITY MANAGER
FINANCE AND ACCOUNTS OFFICE

- (3) Within that level, were you a:
- (a) Chief?
 - (b) Deputy?
 - (c) Team leader?
 - (d) Section leader?
- (4) How many people do you supervise?
- (5) What percentage of your employees used the test microfiche?
- (6) Did these reports on microfiche arrive:
- (a) Faster than the paper report?
 - (b) About the same speed as the paper report?
 - (c) Slower than the paper report?
- (7) Was the turnaround time for the microfiche report:
- (a) Excellent?
 - (b) Very good?
 - (c) Satisfactory?
 - (d) Poor?
 - (e) Unsatisfactory?
- (8) Were enough copies of each report received?
- (a) Yes
 - (b) No
- (9) I received:
- (a) Fewer microfiche copies than I did paper copies.
 - (b) The same number of microfiche copies as I did paper copies.
 - (c) More microfiche copies than I did paper copies.
- (10) Were enough readers (viewers) available for your employees?
- (a) Yes
 - (b) No
- (11) In your opinion, how was employee morale affected by the use of microfiche?
- (a) Morale was much higher.
 - (b) Morale was slightly higher.
 - (c) Morale was about the same.

- (d) Morale was slightly lower.
- (e) Morale was much lower.

(12) In your opinion, how did the use of microfiche affect the employees' ability to do their jobs?

- (a) Microfiche were very helpful.
- (b) Microfiche were helpful.
- (c) Microfiche had no effect.
- (d) Microfiche were a hindrance.
- (e) Microfiche were a severe hindrance.

(13) Was the work routine changed by the use of microfiche?

- (a) No, no changes were made.
- (b) Yes, minor changes were made.
- (c) Yes, major changes were made.

(14) Was the work routine for using the microfiche:

- (a) Easier than the routine for using paper?
- (b) The same as the routine for using paper?
- (c) More difficult than the routine for using paper?

(15) Did you use microfiche yourself?

- (a) No.
- (b) Yes, for personal interest.
- (c) Yes, in my work.

(16) Did you find the microfiche reports:

- (a) Much easier to use than paper?
- (b) Somewhat easier to use than paper?
- (c) About the same as paper?
- (d) Somewhat more difficult to use than paper?
- (e) Much more difficult to use than paper?

(17) Would you recommend additional reports to be produced on microfiche?

- (a) Yes (See my comments in "Remarks" section below)
- (b) No

c. Question for Reader Evaluation

- (1) How many people used this machine?

- (2) How often was the reader used?
- (a) All day (continuously)
 - (b) Daily one or more times per day
 - (c) Not daily but one or more times per week
 - (d) Less than once per week
- (3) Was putting the microfiche into the reader:
- (a) Easy?
 - (b) Satisfactory?
 - (c) Difficult?
- (4) Was locating the desired page or frame using this reader:
- (a) Easy?
 - (b) Satisfactory?
 - (c) Difficult?
- (5) Was the light in this reader:
- (a) Too bright?
 - (b) Just right?
 - (c) Too dark?
- (6) How often did you have to adjust the focus?
- (a) Did not have to adjust the focus
 - (b) Sometimes but less than once per use
 - (c) Once with each use
 - (d) More than once during each use.
- (7) Using the focus adjustment and other controls on this reader was:
- (a) Easy.
 - (b) Satisfactory.
 - (c) Difficult.
- (8) What do you think of the size of the screen?
- (a) Just right
 - (b) Too small
 - (c) Too large.
- (9) What do you think of the overall size of the reader?
- (a) Just right
 - (b) Too small
 - (c) Too large

(10) Was the reader reliable and in working order?

(a) Yes

(b) No

(11) Did you require any maintenance service on the reader?

(a) Yes

(b) No

(12) If service was required was it prompt and satisfactory? (If no service was required, enter "0").

(a) Yes

(b) No

(13) Was the reader available whenever you needed it?

(a) Yes.

(b) Sometimes had to wait to use it.

(c) Always had to wait to use it.

(14) Were you given any training in how to use this reader?

(a) Yes

(b) No

(15) What is your overall opinion of this reader? (Please add comments if any, in the remarks section)

(a) Excellent

(b) Good

(c) Adequate

(d) Poor

(e) Unsatisfactory

REMARKS:

d. POC Test Report Format

(1) Equipment used for test. List items, models, and numbers of production and user equipment used during the test. Indicate whether equipment used was adequate. If changes are recommended, describe desired equipment and reason for change.

(2) Personnel used during test. List functions performed (i.e., operation of COM, etc.), man-hours used, and grade/rank of personnel. Include production, inspection and distribution personnel.

(3) Supplies used during test. List supplies (i.e., films, chemicals, etc.), procured for test and amounts used during test.

(4) Training. Describe training performed for test: type, duration, number and type of persons trained, and source of training. Indicate whether training was adequate, and describe additional training, if any, you would recommend for implementation.

(5) Space requirements. List the number of square feet used for each item of production, inspection and distribution equipment, reader printers and duplicators. Include workspace required for operators. Describe modifications to facilities made for the test. Describe further modifications, if any, you would recommend for implementation.

(6) Problems. List and describe complaints received from users and from equipment operators. Describe resolution or recommended solution to the problem.

(7) Logs. Include copies of Production Logs, attachments 2 and 3, Quality Control Logs, attachment 4, and Maintenance Logs, attachment 5, maintained during test. Logs will be maintained on all microfiche production equipment at in-house sites and on reader/printers, and duplicators at all sites.

6. DATA ANALYSIS PLAN

a. Determine the common characteristics of reports successfully converted (those with a positive degree of user acceptance and minimum of production and distribution problems). Using data collected on current (paper) systems and user evaluation of microforms, identify the criteria for selecting reports that can be successfully converted. Identify which characteristics if any, eliminate a report as a successful candidate for conversion. Match BASOPS reports at all installations against these criteria.

b. Using studies/tests conducted by the Microform Management Branch, (HQDA), MACOMS, and other organizations, validate the most cost-effective microform for each BASOPS-COM MICRODIS.

c. Determine the common characteristics of microfiche equipment with a positive degree of acceptance by users and minimum installation and maintenance problems. Determine which characteristics, if any, are totally unacceptable to users. Develop a profile of desirable equipment characteristics. Match currently available equipment against these characteristics.

d. Determine the required capacity, performance and quality features of production equipment, and identify special requirements, if any. Match equipment capabilities (from production records and vendor information) and manpower requirements to determine equipment items best meeting or exceeding requirements.

e. From production records maintained at in-house and service bureau test sites, develop common factors for projecting BASOPS workloads, manpower, equipment and supply requirements.

f. Determine which, if any, BASOPS reports can be "stacked" (combined) on a single microformat.

7. TEST MILESTONES

	Event	Day
28.09	Determine requirements for in-house site	
26.10	Determine requirements for contract site	
28.14	Test site preparation (in-house)	-20 days
27.00	Orientation/training at all sites	-20 days
28.16	Installation of COM equipment and user equipment	-15 days
28.17	Conduct acceptance test	-10 days
32.00	Conduct tests	day 1*
32.02	Begin evaluation Data Collection	day 50
32.06	Tests completed	day 65
32.07	Begin analysis of Data Collection	day 67

*Tests will begin 7 Jul 75 at Forts Huachuca, Lewis, and Sam Houston and 14 Jul 75 at Fort Carson.

8. RESPONSIBILITIES

a. The COMPACS Group will:

- (1) Have overall responsibility for the conduct of the test,
- (2) Inspect and approve the test site preparation,
- (3) Approve the acceptance of in-house equipment,
- (4) Initiate, monitor and control the conduct of the test,
- (5) Design and distribute DCS and control logs to test sites,
- (6) Design questions for structured interviews and distribute to teams at test sites,

- (7) Initiate modification if necessary, in the conduct of the test.
- (8) Extend or terminate the test as appropriate,
- (9) Evaluate the data collected during the test period.

b. The COMPACS Coordinators will:

- (1) Direct, as requested by the Study Director, that sufficient personnel be designated to assist the POC during the test
- (2) Disseminate the test information provided by the Study Director to their respective installations
- (3) Assure that test site data is forwarded to the COMPACS Group.

c. The COMPACS POC will:

- (1) Prepare the in-house test sites for equipment installation and test operation
- (2) Accept the equipment after suitable acceptance testing and approval by the COMPACS Group
- (3) Monitor the performance of the Service Bureau during the test period at Service Contract test sites
- (4) Arrange for training of test site personnel by the vendor
- (5) Reproduce and distribute to users and production personnel the questionnaires, logs, and other test documents required by the COMPACS Group
- (6) Validate data collected during the test period
- (7) Forward responses (in keypunched format where indicated) to the COMPACS Group.

Attachments

1. List of reports to be tested
2. Production Log - Recorder, DA Form 4388-R (MASTER)
3. Production Log - DA Form 4389-R (MASTER)
4. Quality Control Log - DA Form 4390-R (MASTER)
5. Maintenance Log - DA Form 4391-R (MASTER)
6. *User Evaluation Sheet - DA Form 4392-R (MASTER)
7. *Supervisor Evaluation Sheet - DA Form 4393-R (MASTER)
8. *Equipment Evaluation Sheet - DA Form 4394-R (MASTER)

*(Items to be distributed at a later date)

REPORTS TO BE EVALUATED

(SAILS)

<u>PCN</u>	<u>TITLES</u>
BALA234	Code Table File List
BALA235	Code Table File Update Error List
BALB001	ISD Research List
BALB016	Transactions Input to Pre-Edit
BALB147	Card/Message Output ISO Listing
BALB122	Storage Master Locator Report
BALB215	Listing of SIMS ABF Items RCS CSGLD - 1560
BALC165	LSN/MPN Reject Error List
BALC166	LSN/MPN Review List
BALC167	MCN/MPN INT/SUB XREF Review List
BALC174	ABF Update Reject/Error List
BALC178	DA Cross Reference File
BALC181	DA INT/SUB File
BALD026	Demand Analysis System Controls
BALD032	Manager Directed Stockage Levels
BALF4001	Ledger History

FORT CARSON ONLY

BALB002	Transaction Register
BALB009	Processed Transaction not for Transaction Register
BALB016	Transactions Input to Pre-Edit
BALB091	SAILS ABF Negative Quantity Report
BALB093	Installation Back Order Listing with Back Order Summary (Part I)
BALB094	Due-Out Reconciliation Listing
BALB144	Status Generated During Reconciliation
BALB200	D/I In DHF - Not D/I in D/I File
BALB206	Due-Out Reconciliation Listing POM Inquiry
BALB211	Consolidated Transaction Register
BALB215	Listing of SIMS ABF Items RCS CSGLD - 1560
BALC175	CMF - ABF Reconciliation

(SIDPERS)

BAAC03 *	Weekly Report of AWOLs by Name
BAAC07 *	Unit Manning Report
BAAC09 *	AWOL Statistical Report
BAAC11	Alpha Roster
BAAC21 *	Officer Skills Inventory and Projection by Branch
BAAC29	Organization Master List
BAAC31	Enlisted MOS Inventory - Part I (By name)
BAAC33	Enlisted MOS Inventory - Part II (Statistics)
BAAC37 *	Personnel Qualification Roster
BAAC47 *	Roster of Senior Enlisted Personnel
BAAC49 *	Roster of Officers By Sidpers
BAAC51	AALOC File Listing
BAAM05	MOS Master File Listing

REPORTS TO BE EVALUATED

(SIDPERS)

BAAC35	Monthly Edit Report
BAAP19	DA/DPA Error Notice Listing - Part I
BAAP21	DA/DPA Error Notice Listing - Part II
BAAP23	DA/DPA Error Notice Listing - Part III
BAAP25	DA/DPA Error Notice Listing - Part IV
BAAP27	Unresolved Error Report - Part I - DA/DPA
BAAP29	Unresolved Error Report - Part II- DA/DPA
BAAP31	Unresolved Error Report - Part III-- SIDPERS
BAAP33	Error Deletions Processed - DA Error Notices
BAAP37	Error Deletions Processed - DA/DPA and Inter SIDPERS TDR
BAAP39	Error Deletions Processed - Intact Unit Gains
BAAP41	Error Deletions Processed (Local Input Transaction By Originator Code)
BAAP45	Error Deletions Processed (DPA Update)

*Reports will be tested through each SIDPERS distribution.

(STANFINS)

0101110	Weekly Split-Out Exception Listing
0101111	Master Update Error Report
0101199	Input Listing
0101204	Exception Listing
0101205	Appropriation Reimbursement Exception Listing
0101216	Prior Year Fund Status
0101218	Subledger Update Error Listing
0101233	Accts Receivable Status-APPN Reimbursement Program - Automatic
0101234	Accts Receivable Status - APPN Reimbursement Program-Funded
0101235	Accts Receivable Status-APPN Reimbursement Program-Other sales
0101236	Restore Edit Files
0101238	FS-FL History
0101241	Process Creations Listing
0101242	Exception Notice Inter-Fund/GSA Balance Listing
0101255	Daily TBO Balance List
0101256	APC Master File Prints
0101311	Wildlife Conservation Exception Or Inquiry Listing
0101324	Fund Control and Status
0101325	Weekly Status of Reimbursable Report
0101332	Monthly Balance General Ledger
0101336	Daily Automated Control Register By Dollar Amount
0101337	Daily Automated Control Register By Item Count
0101338	MTD Automated Control Register by Dollar Amount
0101339	MTD Automated Control Register by Item Count
0101340	YTD Automated Control Register by Dollar Amount
0101341	YTD Automated Control Register by Item Count
0101403A	Detail Cost Report Non-Military
0101404	Detail Cost Report Military
0101407	Special Post Project Report
0101494	Weekly Cost by AOB
0101494A	Weekly Cost By AOB By Program Director
0101494B	Weekly Cost by AOB By Activity Director Within Program Director

REPORTS TO BE EVALUATED

(STANFINS)

0101494C	Weekly Cost By AOB By Accounting Classification
0101496	Cost and CSR By AOB
0101497	Recap
0101536	NSF Orders and Payables Report
0101540	Monthly NSF History Records - Dropped

Taken to msg ctr 10 Jul 75
UNCLASSIFIED 0900z

01 03

PP PP UUUU

091530Z JUL 75

DA WASHDC //DAAG-AMZ-C//

CDR FT CARSON CO //AFZC-IS//

CDR FT SAM HOUSTON TX //AFZG-IS//

INFO: CDR FT HUACHUCA AZ //CC-PA-AM//

CDR FT LEWIS WA //AFZH-AGA-RM//

CDRFORSCOM FT MCPHERSON GA //AFAG-ASR//

UNCLAS

SUBJ: COMPACS MICROFICHE MEDIA TEST REQUIREMENTS

REF: HQDA LTR {DAAG-AMZ-C}, 30 JUN 75, SUBJECT AS ABOVE.

1. THE FOLLOWING REPORTS WILL BE ADDED TO THE LIST OF REPORTS TO BE EVALUATED {ATTACHMENT 1, INCLOSURE 1 ABOVE REFERENCE}. THE FOLLOWING REPORTS WILL BE EVALUATED AT FORTS CARSON AND SAM HOUSTON:

PCN	TITLE
BALF1401	STOCK FUND GENERAL LEDGER TRIAL BALANCE
BALF1501	OBLIGATION AUTHORITY CONTROL REPORT
BALF1502	STOCK FUND CASH CONTROL REPORT
BALF1504	OBLIGATIONS OVER \$1000
BALF1506	OUT OF BALANCE ICP INTERFUND BILLING REGISTER
BALF1507	VOUCHER IMBALANCE

Y. M. STARBUCK, MG1 ANAL
DAAG-AMZ-C 30622 9 JUL 75

CHARLES T. SEARCH AMZ-C 30622

6-21

UNCLASSIFIED

02 03

BALF1508	GENERAL LEDGER RECONCILIATION
BALF2001	GENERAL LEDGER/SUBSIDIARY LEDGER RECONCILIATION REPORT
BALF2101	ARMY STOCK FUND MANAGEMENT, DOLLAR VALUE AGED UNDELIVERED ORDERS
BALF2104	ACCTS REC OVER 30 DAYS
BALF2105	OUT OF BALANCE SUBSIDIARY LEDGER RECORDS - OBLIG
BALF2106	OUT OF BALANCE SUBSIDIARY LEDGER RECORDS
BALF2107	OUT OF BALANCE SUBSIDIARY LEDGER RECORDS - CREDITS
BALF2109	OUT OF BALANCE SUBSIDIARY LEDGER RECORDS - ACCTS REC
BALF2111	ERROR RECORD - INVALID LEDGER CODE LISTING
BALF2112	ERROR LISTING - INVALID GLAC
BALF2115	RETURNS TO DEPOT FOR CREDIT, OVER 180 DAYS AND \$5000 OR MORE
BALF2116	DEPOT RETURNS OVER 180 DAYS, LESS THAN \$5000
BALF2117	DEPOT RETURNS 120 TO 180 DAYS
BALF2119	UNDELIVERED ORDERS OVER 180 DAYS
BALF2120	UNDELIVERED ORDERS INC SOURCE OF SUPPLY
BALF2121	ACCOUNTS PAYABLE - UNBILLED RECEIPTS
BALF2124	UNAPPLIED CREDITS OVER 120 DAYS AND LESS THAN \$25

UNCLASSIFIED

33 03

BALF2125 UNAPPLIED CREDITS OVER 120 DAYS AND \$25 TO \$5000
BALF2126 UNAPPLIED CREDITS OVER 120 DAYS AND OVER \$5000
BALF2127 UNAPPLIED CREDITS 60 TO 120 DAYS OVER \$25
BALF2128 UNAPPLIED CREDITS 30 TO 60 DAYS OVER \$25
BALF2502 LEDGER HISTORY REPORTS - APPLICABLE MONETARY
INVENTORY ACTIVITY
BALF4201 ABF PRICE EXTENSION AND RECONCILIATION
BALF4202 PRICE EXTENSION AND RECONCILIATION ERROR LIST
BALF5501 APC FUND CODE MASTER FILE
BALF6201 ARMY STOCK FUND MANAGEMENT REPORT - STATEMENT 6,
REIMBURSABLE ISSUES

2. QUESTIONS REGARDING ABOVE MAY BE DIRECTED TO COMPACS (ATTN:
MS STARBUCK}, AUTOVON 223-0622.

(COMPACS TEST)

Date _____

[illegible]

DA For 88-R, 1 Jul 75

(COMPACS TEST)

Processing Station _____
 Inspection Station #1 _____
 Duplication Station _____
 Inspection Station #2 _____
 Distribution Station _____
 (Check One)

Date _____

[illegible]

TO BE COMPLETED ON INSPECTION OF ORIGINAL AND DUPLICATES OF EACH JOB

[illegible]

TO BE MAINTAINED ON ALL PRODUCTION AND INSPECTION EQUIPMENT, READER/PRINTERS, AND DUPLICATORS
MANUFACTURER

EQUIPMENT

[illegible]

COMPACS EVALUATION QUESTIONNAIRE (USER)

INTRODUCTION: The information requested on this COMPACS Evaluation Questionnaire will be used to assist the COMPACS Group evaluate the impact of converting reports to COM.

INSTRUCTIONS: Complete all items. Answer each question as carefully and accurately as possible. Do not omit any question; enter the answer that most closely applies. You may make comments in the space provided.

FOR POC USE ONLY — DO NOT WRITE IN THIS BLOCK

PRODUCT NAME

DPI CODE

(1)	(2)	(3)	(4)
-----	-----	-----	-----

PRODUCT CONTROL NUMBER
(Left justify, space fill)

(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
-----	-----	-----	-----	-----	------	------	------	------	------

COPY NUMBER

(15)	(16)	(17)
------	------	------

MICROFORM

(18)

SYSTEM

(19)

1 — SAILS

2 — SIDPERS

3 — STANFINS

USER LEVEL

(20-21)	(22)
---------	------

01 — INSTALLATION (Command Group)
02 — COSCOM
03 — THEATER/COMMAND
04 — DEPOT
05 — SIB
06 — MILPO

07 — UNIT
08 — COMMAND ACCOUNTS OFFICE
09 — INSTALLATION BUDGET DIRECTOR
10 — PROGRAM DIRECTOR
11 — ACTIVITY MANAGER
12 — FINANCE AND ACCOUNTS OFFICE

A. Did the microfiche report arrive:

1. Faster than the paper report?
2. In about the same time as the paper report?
3. Slower than the paper report?

(22)

B. Did you receive enough microfiche copies of the report?

1. Yes.
2. No.

(23)

C. When the microfiche report arrived, did you:

1. Keep it and use it?
2. Forward it to another organization?
3. Dispose of it without using?

(24)

D. If the microfiche report was sent outside the installation by you, was: (If it was not sent, enter 0)

1. The only copy of the microfiche report received sent?
2. A duplicate copy of the microfiche report received sent?
3. A duplicate copy of the microfiche requested from the MISO/AG and sent upon its receipt?
4. A paper copy created and sent in lieu of the microfiche?

(25)

(If the copy of the microfiche report received by you is not kept, you may omit the remaining questions.)

E. Did you keep the microfiche report:

1. In specialized microfiche container? (File box, binder, etc.)
2. In a file cabinet?
3. In a desk drawer?
4. In makeshift file device? (Card file, etc.)
5. In a microfiche reader?
6. With personal papers? (In briefcase, pocket, etc.)
7. Other?

(26)

F. How many people shared your copy of the microfiche report? (Example: If none, enter 00, if one user, enter 01, etc.)

(27)

(28)

G. If you shared the microfiche report, was it shared by: (If you did not share it, enter 0)

1. Passing the complete report from user to user as required?
2. Placing the report in a central location?
3. Providing separate fiche containing specific segments of the report to each user?

(29)

H. How often did you have to wait to use the microfiche report while someone else was using it? (If not used, enter 0)

1. Never.
2. Less than half the time.
3. Half the time.
4. More than half the time.
5. Always.

(30)

I. How often was the microfiche report used? (If not used, enter 0)

1. All day.
2. Daily one or more times per day.
3. Not daily but one or more times per week.
4. Less than once per week.

(31)

J. How long was the microfiche report used each time? (If not used, enter 0)

1. Less than five minutes.
2. Five minutes to an hour.
3. Over an hour.

(32)

K. Do you think it is: 1. Easier to compare two paper reports? <input type="checkbox"/> (33) 2. Easier to compare two microfiche reports? 3. No difference between comparison of paper with paper reports and microfiche with microfiche reports?		S. Would you need the following in the title of the microfiche report? <i>(Answer each item "1" to "yes" or "2" for "no")</i>	
		1. Report name/title.	(43)
		2. Product control number/report retrieval code.	(44)
		3. Report date. <i>(Date report produced)</i>	(45)
		4. As of date.	(46)
		5. Inclusive dates covered by report.	(47)
		6. Page numbers.	(48)
		7. Fiche number. <i>(i.e., 1 of 4, 2 of 4, etc.)</i>	(49)
L. If you kept notes about the microfiche report, did you: 1. Make notes on pieces of paper? 2. Make notes on the envelope in which the fiche is kept? 3. Make notes on pieces of paper and the fiche envelope? 4. Make a paper copy of the frame and write on it? 5. Make a paper copy of each frame (page) of the fiche so that you could make notes as needed?		T. If using the microfiche was difficult at first, did it become easier with practice? <i>(If not used, enter 0)</i> 1. Yes <input type="checkbox"/> (50) 2. Not difficult. 3. No.	
M. Estimate the number of duplicate microfiche you made or requested be made from the microfiche report during the test? <i>(If zero, enter 00)</i> (35)		(36)	
N. Estimate the total number of pages of paper copies you made from this microfiche report on the reader/printer during the test? <i>(If 100 or more, enter 99)</i> (37)		(38)	
O. The microfiche report was: <i>(If not used, enter 0)</i> 1. Easier to use than the paper report? 2. About the same as the paper report? 3. More difficult to use than the paper report?		U. Do you use other reports prepared/produced on microfiche? 1. Yes. <input type="checkbox"/> (51) 2. No.	
P. Did you find the information you needed on the microfiche report: <i>(If not used, enter 0)</i> 1. More quickly than on the paper report? 2. In the same time as on the paper report? 3. More slowly than on the paper report?		V. Have you worked with the report addressed in this questionnaire: 1. Less than one year? 2. Between one and two years? 3. Between two and five years? 4. Over five years?	
Q. Did you find the index on microfiche report: <i>(If you did not use the index, enter 0)</i> 1. Helpful in finding the required information? 2. Adequate to find the required information? 3. Little help in finding the required information?		W. Would you like to receive other reports on microfiche? 1. I would like to receive all the report I use on microfiche. 2. I would like to receive certain other reports on microfiche. 3. I would not like to receive any other reports on microfiche. 4. I have no opinion.	
R. Did you find the title on the microfiche report: 1. Helpful in identifying the report? 2. Adequate to identify the report? 3. Little help in identifying the report?		(41) (42)	
		X. Card number.	3 (80)

Comments *(Continue on additional pages, if necessary)*

COMPACS EVALUATION QUESTIONNAIRE (SUPERVISOR)

INTRODUCTION: The information requested on this COMPACS Evaluation Questionnaire will be used to assist the COMPACS Group evaluate the impact of converting various BASOPS outputs to COM.

INSTRUCTIONS: Complete all items. Answer each question as carefully and accurately as possible. Do not omit a question; enter the answer that most nearly applies. You may make comments in the space provided.

FOR POC USE ONLY - DO NOT WRITE IN THIS BLOCK

DPI CODE

(1)	(4)
<input type="text"/>	<input type="text"/>

SUPERVISOR NUMBER

(5)	(7)
<input type="text"/>	<input type="text"/>

A. Of the various BASOPS reports produced on microfiche, how many different ones were used by your office? (Right justify, i.e., if 2 enter 02)		(8)	<input type="text"/>	(9)	<input type="text"/>																		
B. At what management level were you responsible for the use of these reports?		(10)	<input type="text"/>	(11)	<input type="text"/>																		
<table border="0"> <tr> <td>SAILS:</td> <td>SIDPERS:</td> <td>STANFINS:</td> </tr> <tr> <td>01 - INSTALLATION</td> <td>05 - SIB</td> <td>08 - COMMAND ACCOUNTS OFFICE</td> </tr> <tr> <td>02 - COSCOM</td> <td>06 - MILPO</td> <td>09 - INSTALLATION BUDGET DIRECTOR</td> </tr> <tr> <td>03 - THEATER/COMMAND</td> <td>07 - UNIT</td> <td>10 - PROGRAM DIRECTOR</td> </tr> <tr> <td>04 - DEPOT</td> <td></td> <td>11 - ACTIVITY MANAGER</td> </tr> <tr> <td></td> <td></td> <td>12 - FINANCE AND ACCOUNTS OFFICE</td> </tr> </table>		SAILS:	SIDPERS:	STANFINS:	01 - INSTALLATION	05 - SIB	08 - COMMAND ACCOUNTS OFFICE	02 - COSCOM	06 - MILPO	09 - INSTALLATION BUDGET DIRECTOR	03 - THEATER/COMMAND	07 - UNIT	10 - PROGRAM DIRECTOR	04 - DEPOT		11 - ACTIVITY MANAGER			12 - FINANCE AND ACCOUNTS OFFICE	13 - Other <input type="text"/>			
SAILS:	SIDPERS:	STANFINS:																					
01 - INSTALLATION	05 - SIB	08 - COMMAND ACCOUNTS OFFICE																					
02 - COSCOM	06 - MILPO	09 - INSTALLATION BUDGET DIRECTOR																					
03 - THEATER/COMMAND	07 - UNIT	10 - PROGRAM DIRECTOR																					
04 - DEPOT		11 - ACTIVITY MANAGER																					
		12 - FINANCE AND ACCOUNTS OFFICE																					
C. Within that level of management were you a:		(12)	L. In your opinion, how was employee morale affected by the use of microfiche?																				
1. Chief? 2. Deputy?		<input type="text"/>	1. Morale was much higher.																				
3. Team Leader? 4. Section Leader?		<input type="text"/>	2. Morale was slightly higher.																				
			3. Morale was about the same.																				
			4. Morale was slightly lower.																				
			5. Morale was much lower.																				
D. How long have you occupied that position?		(13)	M. In your opinion, how did the use of microfiche affect the employees ability to do their jobs?																				
1. Less than one year.		<input type="text"/>	1. Microfiche were very helpful.																				
2. One to two years.			2. Microfiche were helpful.																				
3. Two to five years.			3. Microfiche had no effect.																				
4. Over five years.			4. Microfiche were a hindrance.																				
E. How many people do you supervise? (Right justify, i.e., if 9 enter 09)		(14)	<input type="text"/>	(15)	<input type="text"/>																		
F. How many of your employees used the test microfiche?		(16)	<input type="text"/>	(17)	<input type="text"/>																		
G. The turnaround time for the microfiche report(s) was:		(18)	N. Was the work routine changed by the use of microfiche?																				
1. Excellent.		<input type="text"/>	1. No, no changes were made.																				
2. Very good.			2. Yes, minor changes were made.																				
3. Satisfactory.			3. Yes, major changes were made.																				
4. Poor.			O. Was the work routine for using the microfiche:																				
5. Unsatisfactory.			1. Easier than the routine for using paper?																				
			2. The same as the routine for using paper?																				
			3. More difficult than the routine for using paper?																				
H. Compared with the reports on paper, did these reports on microfiche arrive:		(19)	P. Did you use microfiche yourself?																				
1. Faster than the paper report?		<input type="text"/>	1. No.																				
2. About the same speed as the paper report?			2. Yes, for personal interest.																				
3. Slower than the paper report?			3. Yes, in my work.																				
I. Were enough copies of each report received?		(20)	Q. Did you find the microfiche reports:																				
1. Yes.		<input type="text"/>	1. Much easier to use than paper?																				
2. No.			2. Somewhat easier to use than paper?																				
			3. About the same as paper?																				
			4. Somewhat more difficult to use than paper?																				
			5. Much more difficult to use than paper?																				
J. The number of copies of the microfiche report(s) received was: (Note: A copy may consist of more than one microfiche)		(21)	R. Would you recommend that additional reports be produced on microfiche?																				
1. Less than the number of copies of the paper report I used to receive.		<input type="text"/>	1. Yes. (See my comments below)																				
2. The same as the number of copies of the paper report I used to receive.			2. No.																				
3. Greater than the number of copies of the paper report I used to receive.																							
K. Were enough readers (viewers) available for your employees? (i.e., no one had to wait to use one)		(22)	S. Card Number																				
1. Yes.		<input type="text"/>	4	(80)																			
2. No.																							

Comments (Continue on reverse)

COMPACS EVALUATION QUESTIONNAIRE (READERS)

INTRODUCTION: The information requested on this COMPACS Evaluation Questionnaire will be used to assist the COMPACS Group determine reader requirements for a BASOPS COM system.

INSTRUCTIONS: This evaluation questionnaire will be completed by each user of microfiche, or by the POC or COMPACS Group during an interview with the user of the reader. Complete all items. Answer each question as carefully and accurately as possible. You may record comments and explanations in the space provided.

FOR POC USE ONLY -- DO NOT WRITE IN THIS BLOCK

DPI CODE	(1) <input type="text"/>	(4) <input type="text"/>
READER	(5-6) <input type="text"/>	01 - DATAGRAPHIX 1450 02 - DATAGRAPHIX 1400 03 - GAF 7700 04 - GAF 7800 05 - GAF 7800 (w/dual lens) 06 - KODAK EASAMATIC 07 - MICRO DESIGN 150 08 - MICRO DESIGN 200 09 - NCR 456-248 10 - NCR DUAL FICHE CARRIER 11 - NM1 90-48X 12 - OCE 3531 13 - QUANTAR 305 14 - SR IV BELL & HOWELL 15 - SR IV (Dual fiche carrier) 16 - SR IV (W/dual lens) 17 - VANTAGE X-II 18 - VANTAGE X-II (W/dual lens)
USER NUMBER	(7) <input type="text"/>	(9) <input type="text"/> 19 - Others _____ (Write-in)

A. How many people used this reader? (Right justify, i.e., if 2 enter 02)	(10) <input type="text"/>	(11) J. What do you think of the size of the screen? 1. Just right. 2. Too small. 3. Too large.	<input type="text"/> (20)
B. Were other model readers available in your office? 1. Yes. 2. No.	(12) <input type="text"/>	K. What do you think of the overall size of the reader? 1. Just right. 2. Too small. 3. Too large.	<input type="text"/> (21)
C. How often was the reader used? 1. All day (Continuously). 2. Daily one or more times per day. 3. Not daily but one or more times per week. 4. Less than once per week.	(13) <input type="text"/>	L. Was the reader reliable and in working order? 1. Yes. 2. No.	<input type="text"/> (22)
D. Was the reader used to: 1. Read just one report; other readers were used for other reports? 2. Read all microfiche received by one individual? 3. Read all microfiche received by several individuals in the office?	(14) <input type="text"/>	M. Did you require any maintenance service on the reader? 1. Yes. 2. No.	<input type="text"/> (23)
E. Was putting the microfiche into the reader: 1. Easy. 2. Satisfactory. 3. Difficult.	(15) <input type="text"/>	N. If service was required, was it prompt and satisfactory? (Enter 0 if no service was required) 1. Yes. 2. No.	<input type="text"/> (24)
F. Was locating the desired page or frame using this reader: 1. Easy. 2. Satisfactory. 3. Difficult.	(16) <input type="text"/>	O. Was the reader available whenever you needed it? 1. Yes. 2. Sometimes had to wait to use it. 3. Always had to wait to use it.	<input type="text"/> (25)
G. Was the light in this reader: 1. Too bright. 2. Just right. 3. Too dark.	(17) <input type="text"/>	P. Were you given any training in how to use this reader? 1. Yes. 2. No.	<input type="text"/> (26)
H. How often did you have to adjust the focus? 1. Did not have to adjust the focus. 2. Sometimes but less than once per use. 3. Once with each use. 4. More than once during each use.	(18) <input type="text"/>	Q. What is your overall opinion of this reader? (Please add comments if any, in the space provided below) 1. Excellent. 2. Good. 3. Adequate. 4. Poor. 5. Unsatisfactory.	<input type="text"/> (27)
I. Was the focus adjustment and other control on this reader: 1. Easy? 2. Satisfactory? 3. Difficult?	(19) <input type="text"/>	R. Card number.	5 (80)

Comments (Continue on reverse)

TEST RESULTS

The test plan described the test objectives, schedule, procedures, and documentation requirements. The test started on 7 July at Forts Huachuca, Lewis, and Sam Houston, and 14 July at Fort Carson and concluded on 6 and 13 October respectively. Subsequent to the test, the following information was collected by the respective POC and submitted as an after-action report.

a. POC NARRATIVE AFTER-ACTION REPORT. Each test site POC submitted a brief written after-action report covering the topics of equipment used, personnel required, supplies used, training, space, and special problems encountered.

b. PRODUCTION LOGS: The number of original fiche and duplicates produced during the test period was recorded in the production logs at the in-house sites as follows:

Fort Carson	<u>3,428</u> fiche	<u>32,834</u> duplicates
Fort Huachuca	<u>1,733</u> fiche	<u>15,648</u> duplicates

Production information from the service bureau sites, obtained from the billing documents was as follows:

Fort Lewis	<u>2,338</u> fiche	<u>25,886</u> duplicates
Fort Sam Houston	<u>1,354</u> fiche	<u>29,689</u> duplicates

The foregoing production figures include all microfiche produced during the test period. As such, it includes the 91 reports required to be evaluated by the users and those other BASOPS reports, command, and local unique reports converted from ADP paper to microfiche at the option of the test site POC.

c. EVALUATION QUESTIONNAIRES: The report users completed evaluation sheets on selected test (microfiche) reports and on readers used during the test. The supervisor of each user also completed an evaluation sheet. The responses are summarized below. Detailed data is available from the COMPACS Group.

(1) User evaluation sheets. The user evaluation sheet, DA Form 4392-R provided the following information:

QUESTION: A. Did the microfiche report arrive: 1. Faster than the paper report? 2. In about the same time as the paper report? 3. Slower than the paper report? (Variable #1)

RESPONSES:	<u>1</u>	<u>2</u>	<u>3</u>
SAILS	.25	.24	.51
SIDPERS	.23	.36	.41
STANFINS	.29	.47	.24
TOTAL	.26	.36	.38

CONCLUSION: The microfiche report turnaround time is about as good as that of the existing paper system

QUESTION: B. Did you receive enough microfiche copies of the report? 1. Yes, 2. No. (Variable #2)

RESPONSES:	<u>1</u>	<u>2</u>
SAILS	.99	.01
SIDPERS	.92	.08
STANFINS	.98	.02
TOTAL	.96	.04

CONCLUSION: Sufficient microfiche copies were produced to satisfy all normal user requirements

QUESTION: C. When the microfiche report arrived, did you: 1. Keep it and use it? 2. Forward it to another organization? 3. Dispose of it without using? (Variable #3)

RESPONSES:	<u>1</u>	<u>2</u>	<u>3</u>
SAILS	.99	.01	.00
SIDPERS	.97	.01	.02
STANFINS	.91	.01	.08
TOTAL	.96	.01	.03

CONCLUSION: Test microfiche were kept and used by the respondents.

QUESTION: D. If the microfiche was sent outside the installation by you, was: (If it was not sent, enter 0) 1. The only copy of the microfiche sent? 2. A duplicate copy of the microfiche sent? 3. A duplicate copy of the microfiche requested from the MISO/AG and sent upon its receipt? 4. A paper copy created and sent in lieu of the microfiche? (Variable #4)

RESPONSES:	0	1	2	3	4
SAILS	.91	.00	.08	.00	.01
SIDPERS	.89	.02	.03	.00	.06
STANFINS	.95	.00	.03	.01	.01
TOTAL	.92	.00	.05	.00	.03

CONCLUSION: Reports are seldom sent outside the installation.

QUESTION: E. Did you keep the microfiche report: (0 indicates no response) 1. In specialized microfiche container? 2. In a file cabinet? 3. In a desk drawer? 4. In makeshift file device? 5. In a microfiche reader? 6. With personal papers? 7. Other? (Variable #5)

RESPONSES:	0	1	2	3	4	5	6	7
SAILS	.00	.75	.05	.03	.16	.01	.00	.00
SIDPERS	.01	.43	.17	.14	.17	.04	.00	.04
STANFINS	.08	.79	.01	.03	.09	.00	.00	.00
TOTAL	.03	.65	.08	.07	.14	.02	.00	.01

CONCLUSION: Users preferred to keep microfiche reports in a specialized container designed for that purpose, or where necessary, in a makeshift device similar to such specialized containers.

QUESTION: F. (Responses inappropriate for collation)

QUESTION: G. If you shared the microfiche report, was it shared by:
(If you did not share it, enter 0) 1. Passing the complete report from user to user as required? 2. Placing the report in a central location? 3. Providing a separate fiche containing specific segments of the report to each user?
(Variable #6)

RESPONSES:	0	1	2	3
SAILS	.61	.05	.34	.00
SIDPERS	.51	.02	.41	.06
STANFINS	.57	.03	.40	.01
TOTAL	.57	.03	.38	.02

CONCLUSION: Over half of the users did not share the report. Where sharing was required, users found that locating the report in a central location available to all users was the most practical solution.

QUESTION: H. How often did you have to wait to use the microfiche report while someone else was using it? (If you did not have to wait, enter 0) 1. Never. 2. Less than half the time. 3. Half the time. 4. More than half the time. 5. Always. (Variable #7)

RESPONSES:	0	1	2	3	4	5
SAILS	.01	.93	.06	.00	.00	.00
SIDPERS	.10	.74	.15	.01	.00	.00
STANFINS	.14	.79	.06	.01	.00	.00
TOTAL	.08	.83	.09	.00	.00	.00

CONCLUSION: Users do not often wait to use a microfiche report because someone else is using it.

QUESTION: I. How often was the microfiche report used? (If you did not use the microfiche report, enter 0) 1. All day. 2. Daily one or more times per day. 3. Not daily but one or more times per week. 4. Less than once per week. (Variable #8)

RESPONSES:	0	1	2	3	4
SAILS	.00	.04	.37	.23	.36
SIDPERS	.10	.20	.30	.15	.25
STANFINS	.14	.02	.23	.32	.29
TOTAL	.08	.09	.30	.23	.30

CONCLUSION: Frequency of microfiche use ranged equally from less than once a week to one or more times a day.

QUESTION: J. How long was the microfiche report used each time?
 (If it was not used, enter 0) 1. Less than five minutes.
 2. Five minutes to an hour. 3. Over an hour.
 (Variable #9)

RESPONSES:	0	1	2	3
SAILS	.01	.46	.48	.05
SIDPERS	.10	.33	.49	.08
STANFINS	.14	.22	.53	.11
TOTAL	.08	.34	.50	.08

CONCLUSION: Most of the microfiche was used up to an hour.

QUESTION: K. Do you think it is: (0 indicates no response)
 1. Easier to compare two paper reports? 2. Easier to compare two microfiche reports? 3. No difference between comparison of paper with paper and microfiche with microfiche reports? (Variable #10)

RESPONSES:	0	1	2	3
SAILS	.00	.73	.20	.06
SIDPERS	.02	.35	.28	.35
STANFINS	.09	.68	.10	.13
TOTAL	.04	.59	.19	.18

CONCLUSION: It is easier to compare two paper reports than to compare two reports on microfiche.

QUESTION: L. If you kept notes about the microfiche, did you: (0 indicates no response) 1. Make notes on pieces of paper? 2. Make notes on the envelope in which the fiche is kept? 3. Make notes on pieces of paper and the fiche envelope? 4. Make a paper copy of the frame and write on it? 5. Make a paper copy of each frame (page) of the fiche so that you could make notes as needed? (Variable #11)

RESPONSES:	0	1	2	3	4	5
SAILS	.03	.76	.00	.00	.21	.00
SIDPERS	.07	.64	.23	.04	.02	.00
STANFINS	.12	.76	.06	.03	.03	.00
TOTAL	.07	.72	.10	.02	.09	.00

CONCLUSION: Notes kept about the microfiche were usually made on pieces of paper (separate from fiche envelopes).

QUESTION: M. (Responses inappropriate for collation).

QUESTION: N. (Responses inappropriate for collation).

QUESTION: O. The microfiche report was: (If not used, enter 0)
1. Easier to use than paper reports? 2. About the
same as paper reports? 3. More difficult to use than
paper reports? (Variable #12)

RESPONSES:	0	1	2	3
SAILS	.01	.45	.39	.15
SIDPERS	.04	.46	.38	.12
STANFINS	.10	.26	.30	.34
TOTAL	.05	.39	.36	.20

CONCLUSION: Use of microfiche was slightly easier or about the
same as the use of paper.

QUESTION: P. Did you find the information you needed on the micro-
fiche report: (0 indicates no response) 1. More quickly
than on the paper report? 2. In the same time as on the
paper report? 3. More slowly than on the paper report?
(Variable #13)

RESPONSES:	0	1	2	3
SAILS	.01	.44	.41	.14
SIDPERS	.04	.47	.39	.11
STANFINS	.09	.27	.33	.31
TOTAL	.04	.39	.38	.19

CONCLUSION: Information on microfiche can be located faster than or
in about the same time as on paper.

QUESTION: Q. Did you find the index on the microfiche report:
(If you did not use the index, enter 0) 1. Helpful in
finding the required information? 2. Adequate to find
the required information? 3. Little help in finding the
required information? (Variable #14)

RESPONSES:	0	1	2	3
SAILS	.23	.37	.19	.21
SIDPERS	.38	.42	.15	.05
STANFINS	.15	.51	.12	.22
TOTAL	.25	.43	.15	.17

CONCLUSION: When used, the index on the microfiche report was helpful in finding information.

QUESTION: R. Did you find the title on the microfiche report:
(0 indicates no response) 1. Helpful in identifying
the report? 2. Adequate to identify the report?
3. Little help in identifying the report? (Variable #15)

RESPONSES:	0	1	2	3
SAILS	.00	.65	.33	.02
SIDPERS	.02	.84	.09	.05
STANFINS	.08	.62	.25	.05
TOTAL	.04	.70	.22	.04

CONCLUSION: Most users found the title on the microfiche helpful.

QUESTION: S. Would you need the following in the title of the
microfiche report? (0 indicates no response)

1. Report name/title. (Variable #16)

RESPONSES:	<u>NO ANS</u>	<u>YES</u>	<u>NO</u>
SAILS	.00	100	.00
SIDPERS	.02	.95	.03
STANFINS	.08	.91	.01
TOTAL	.03	.95	.02

CONCLUSION: The overwhelming majority of users required the report
name/title on the microfiche report.

QUESTION: S (Cont'd)

2. Product control number/report retrieval code.
(Variable #17)

RESPONSES:	<u>NO ANS</u>	<u>YES</u>	<u>NO</u>
SAILS	.00	.80	.20
SIDPERS	.02	.45	.53
STANFINS	.08	.32	.60
TOTAL	.03	.53	.44

CONCLUSION: More than half of the users need the Product Control Number/report retrieval code on the microfiche report.

3. Report date. (Variable #18)

RESPONSES:	<u>NO ANS</u>	<u>YES</u>	<u>NO</u>
SAILS	.00	.50	.50
SIDPERS	.02	.92	.06
STANFINS	.08	.73	.19
TOTAL	.03	.72	.25

CONCLUSION: Most users need the report date on the microfiche report.

4. As of date. (Variable #19) (Also known as "Cycle Date") (Available as Optional Data)

RESPONSES:	<u>NO ANS</u>	<u>YES</u>	<u>NO</u>
SAILS	.00	.95	.05
SIDPERS	.02	.83	.15
STANFINS	.08	.84	.08
TOTAL	.03	.88	.09

CONCLUSION: The majority of users require the "as of" date on the microfiche report.

QUESTION: S (Cont'd)

5. Inclusive dates covered by report. (Variable #20)

RESPONSES:	<u>NO ANS</u>	<u>YES</u>	<u>NO</u>
SAILS	.00	.44	.56
SIDPERS	.02	.48	.50
STANFINS	.08	.74	.18
TOTAL	.03	.56	.41

CONCLUSION: About half of the users want inclusive (range) dates.

6. Page number. (Variable #21)

RESPONSES:	<u>NO ANS</u>	<u>YES</u>	<u>NO</u>
SAILS	.00	.53	.47
SIDPERS	.02	.43	.55
STANFINS	.08	.64	.28
TOTAL	.03	.53	.43

CONCLUSION: About half of the users need page number (it is provided automatically by system).

7. Fiche number. (Variable #22)

RESPONSES:	<u>NO ANS</u>	<u>YES</u>	<u>NO</u>
SAILS	.00	.92	.08
SIDPERS	.02	.70	.28
STANFINS	.08	.61	.31
TOTAL	.03	.75	.22

CONCLUSION: Most users want fiche numbered.

QUESTION: T. If using the microfiche was difficult at first, did it become easier with practice? (If not used, enter 0)
1. Yes 2. Not difficult 3. No. (Variable #23)

RESPONSES:	0	1	2	3
SAILS	.01	.72	.24	.03
SIDPERS	.04	.79	.12	.05
STANFINS	.09	.65	.17	.09
TOTAL	.05	.72	.18	.05

CONCLUSION: Most users found microfiche easier to use with practice.

QUESTION: U. Do you use other reports prepared/produced on microfiche? (0 indicates no response) 1. Yes 2. No.
(Variable #24)

RESPONSES:	0	1	2
SAILS	.00	.92	.08
SIDPERS	.02	.86	.12
STANFINS	.08	.72	.20
TOTAL	.03	.84	.13

CONCLUSION: Most users use other microfiche reports.

QUESTION: V. Have you worked with the report addressed in the questionnaire: (0 indicates no response) 1. Less than one year? 2. Between one and two years? 3. Between two and five years? 4. Over five years? (Variable #25)

RESPONSES:	0	1	2	3	4
SAILS	.00	.40	.24	.28	.08
SIDPERS	.02	.77	.16	.05	.00
STANFINS	.08	.43	.11	.30	.08
TOTAL	.03	.53	.17	.21	.06

CONCLUSION: About half of the users have worked with the reports less than one year.

QUESTION: W. Would you like to receive other reports on microfiche?
 (0 indicates no response) 1. I would like to receive
 all the reports I use on microfiche. 2. I would like to
 receive certain other reports on microfiche. 3. I would
 not like to receive any other report on microfiche. 4. I
 have no opinion. (Variable #26)

RESPONSES:	0	1	2	3	4
SAILS	.00	.11	.49	.30	.10
SIDPERS	.02	.26	.31	.07	.34
STAFINS	.08	.17	.25	.36	.14
TOTAL	.03	.18	.35	.25	.19

CONCLUSION: About half the users would like other reports on micro-
 fiche.

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(2) Reader evaluation sheets. Selected results from the reader evaluation questionnaire, DA Form 4394-R, are summarized below:

QUESTION: E. Putting the microfiche into the reader was?

READER	EASY	SAT	DIFFICULT	TOTAL
01-DATAGRAPHIX 1450	19	19	1	39
02-DATAGRAPHIX 1400	3	4	0	7
03-GAF 7700	19	7	0	26
04-GAF 7800	14	8	1	23
05-GAF 7800 (w/dual lens)	11	5	0	16
06-KODAK EASAMATIC	3	3	0	6
07-MICRO DESIGN 150	37	8	1	46
08-MICRO DESIGN 200	22	5	2	29
09-NCR 456-284	66	23	0	89
10-NCR DUAL FICHE CARRIER	11	3	0	14
11-NMI 90-48X	3	0	0	3
12-OCE 3531	11	3	4	18
13-QUANTOR 305	19	7	0	26
14-SR IV BELL & HOWELL	41	11	1	53
15-SR IV (dual fiche carrier)	3	1	0	4
16-SR IV (w/dual lens)	5	1	0	6
17-VANTAGE X-II	10	3	2	15
18-VANTAGE X-II (w/dual lens)	<u>1</u>	<u>1</u>	<u>1</u>	<u>3</u>
	298	112	13	423

QUESTION: F. Locating the desired page or frame using this reader was?

READER	EASY	SAT	DIFFICULT	TOTAL
01-DATAGRAPHIX 1450	11	18	10	39
02-DATAGRAPHIX 1400	0	3	4	7
03-GAF 7700	6	16	4	26
04-GAF 7800	6	14	3	23
05-GAF 7800 (w/dual lens)	2	8	6	16
06-KODAK EASAMATIC	0	1	5	6
07-MICRO DESIGN 150	17	20	9	46
08-MICRO DESIGN 200	12	12	5	29
09-NCR 456-284	32	50	8	90
10-NCR DUAL FICHE CARRIER	8	6	0	14
11-NMI 90-48X	3	0	0	3
12-OCE 3531	6	8	4	18
13-QUANTOR 305	13	12	1	26
14-SR IV BELL & HOWELL	33	17	4	54
15-SR IV (dual fiche carrier)	2	2	0	4
16-SR IV (w/dual lens)	4	2	0	6
17-VANTAGE X-II	5	4	6	15
18-VANTAGE X-II (w/dual lens)	1	2	0	3
	<u>161</u>	<u>195</u>	<u>69</u>	<u>425</u>

QUESTION: G. The light in this reader was?

READER	TOO BRIGHT	JUST RIGHT	TOO DARK	TOTAL
01-DATAGRAPHIX 1450	2	37	0	39
02-DATAGRAPHIX 1400	1	2	4	7
03-GAF 7700	1	24	1	26
04-GAF 7800	0	18	5	23
05-GAF 7800 (w/dual lens)	0	6	10	16
06-KODAK EASAMATIC	1	3	2	6
07-MICRO DESIGN 150	1	35	10	46
08-MICRO DESIGN 200	0	23	6	29
09-NCR 456-284	0	68	22	90
10-NCR DUAL FICHE CARRIER	0	14	0	14
11-NMI 90-48X	0	3	0	3
12-OCE 3531	0	17	1	18
13-QUANTOR 305	2	23	1	26
14-SR IV BELL & HOWELL	1	40	13	54
15-SR IV (dual fiche carrier)	0	4	0	4
16-SR IV (w/dual lens)	1	5	0	6
17-VANTAGE X-II	1	9	5	15
18-VANTAGE X-II (w/dual lens)	0	2	1	3
	<u>11</u>	<u>333</u>	<u>81</u>	<u>425</u>

QUESTION: H. How often did you have to adjust the focus?

READER	NONE	LESS THAN ONCE	ONE TIME	MORE THAN ONCE	TOTAL
01-DATAGRAPHIX 1450	6	19	8	6	39
02-DATAGRAPHIX 1400	1	4	0	2	7
03-GAF 7700	3	16	6	1	26
04-GAF 7800	1	12	4	6	23
05-GAF 7800 (w/dual lens)	3	4	4	5	16
06-KODAK EASAMATIC	0	1	0	5	6
07-MICRO DESIGN 150	6	24	0	16	46
08-MICRO DESIGN 200	1	22	5	1	29
09-NCR 456-284	7	32	21	30	90
10-NCR DUAL FICHE CARRIER	0	8	2	4	14
11-NMI 90-48X	1	1	1	0	3
12-OCE 3531	3	12	2	1	18
13-QUANTOR 305	1	9	12	4	26
14-SR IV BELL & HOWELL	9	23	13	9	54
15-SR IV (dual fiche carrier)	0	4	0	0	4
16-SR IV (w/dual lens)	0	3	3	0	6
17-VANTAGE X-II	0	6	5	4	15
18-VANTAGE X-II (w/dual lens)	<u>1</u> 43	<u>1</u> 201	<u>0</u> 86	<u>1</u> 95	<u>3</u> 425

QUESTION: I. The focus adjustment and other controls on this reader were?

READER	EASY	SAT	DIFFICULT	TOTAL
01-DATAGRAPHIX 1450	18	18	3	39
02-DATAGRAPHIX 1400	4	3	0	7
03-GAF 7700	20	5	1	26
04-GAF 7800	13	8	2	23
05-GAF 7800 (w/dual lens)	6	10	0	16
06-KODAK EASAMATIC	2	2	2	6
07-MICRO DESIGN 150	30	7	9	46
08-MICRO DESIGN 200	15	13	1	29
09-NCR 456-284	54	33	3	90
10-NCR DUAL FICHE CARRIER	11	3	0	14
11-NMI 90-48X	3	0	0	3
12-OCE 3531	11	6	1	18
13-QUANTOR 305	17	9	0	26
14-SR IV BELL & HOWELL	42	10	2	54
15-SR IV (dual fiche carrier)	4	0	0	4
16-SR IV (w/dual lens)	6	0	0	6
17-VANTAGE X-II	6	8	1	15
18-VANTAGE X-II (w/dual lens)	1	2	0	3
	<u>263</u>	<u>137</u>	<u>25</u>	<u>425</u>

QUESTION: J. What do you think of the size of the screen?

READER	JUST RIGHT	TOO SMALL	TOO LARGE	TOTAL
01-DATAGRAPHIX 1450	32	3	4	39
02-DATAGRAPHIX 1400	6	1	0	7
03-GAF 7700	25	1	0	26
04-GAF 7800	20	1	2	23
05-GAF 7800 (w/dual lens)	9	6	1	16
06-KODAK EASAMATIC	4	1	1	6
07-MICRO DESIGN 150	28	18	0	46
08-MICRO DESIGN 200	22	5	2	29
09-NCR 456-284	77	8	5	90
10-NCR DUAL FICHE CARRIER	14	0	0	14
11-NMI 90-48X	3	0	0	3
12-OCE 3531	15	3	0	18
13-QUANTOR 305	22	4	0	26
14-SR IV BELL & HOWELL	47	6	1	54
15-SR IV (dual fiche carrier)	4	0	0	4
16-SR IV (w/dual lens)	6	0	0	6
17-VANTAGE X-II	8	6	1	15
18-VANTAGE X-II (w/dual lens)	3	0	0	3
	<u>345</u>	<u>63</u>	<u>17</u>	<u>425</u>

QUESTION: K. What do you think of the overall size of the reader?

READER	JUST RIGHT	TOO SMALL	TOO LARGE	TOTAL
01-DATAGRAPHIX 1450	23	1	15	39
02-DATAGRAPHIX 1400	6	1	0	7
03-GAF 7700	25	0	1	26
04-GAF 7800	13	0	10	23
05-GAF 7800 (w/dual lens)	7	3	6	16
06-KODAK EASAMATIC	3	1	2	6
07-MICRO DESIGN 150	34	11	1	46
08-MICRO DESIGN 200	23	1	5	29
09-NCR 456-284	61	5	24	90
10-NCR DUAL FICHE CARRIER	13	0	1	14
11-NMI 90-48X	3	0	0	3
12-OCE 3531	18	0	0	18
13-QUANTOR 305	11	3	12	26
14-SR IV BELL & HOWELL	40	6	8	54
15-SR IV (dual fiche carrier)	3	0	1	4
16-SR IV (w/dual lens)	5	0	1	6
17-VANTAGE X-II	10	3	2	15
18-VANTAGE X-II (w/dual lens)	<u>1</u>	<u>0</u>	<u>2</u>	<u>3</u>
	299	35	91	425

QUESTION: Q. What is your overall opinion of this reader?

READER	EXCL	GOOD	ADEQ	POOR	UNSAT	TOTAL
01-DATAGRAPHIX 1450	4	17	10	4	4	39
02-DATAGRAPHIX 1400	0	1	6	0	0	7
03-GAF 7700	5	14	7	0	0	26
04-GAF 7800	5	8	8	1	1	23
05-GAF 7800 (w/dual lens)	0	3	11	2	0	16
06-KODAK EASAMATIC	0	1	2	2	1	6
07-MICRO DESIGN 150	10	15	13	4	4	46
08-MICRO DESIGN 200	9	12	7	1	0	29
09-NCR 456-284	14	41	31	1	3	90
10-NCR DUAL FICHE CARRIER	7	5	1	1	0	14
11-NMI 90-48X	3	0	0	0	0	3
12-OCE 3531	4	8	4	0	2	18
13-QUANTOR 305	4	18	4	0	0	26
14-SR IV BELL & HOWELL	12	21	18	1	2	54
15-SR IV (dual fiche carrier)	0	4	0	0	0	4
16-SR IV (w/dual lens)	1	3	2	0	0	6
17-VANTAGE X-II	1	3	5	6	0	15
18-VANTAGE X-II (w/dual lens)	0	1	2	0	0	3
	<u>79</u>	<u>175</u>	<u>131</u>	<u>23</u>	<u>17</u>	<u>425</u>

ANNEX H, COMPACS Data Collection
[At other than Test Sites]

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DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20314

HQDA Ltr 18-75-2

S-11 July 1975

DAAG-AMZ-C (M) (23 May 75)

27 May 1975

Expires 28 February 1976

SUBJECT: COMPACS Data Collection (MICRODIS NR 4002-US5C)

SEE DISTRIBUTION

1. HQDA Ltr 340-74-7, dated 6 December 1974, subject: Computer Output Microforms Program and Concept Study (COMPACS) directed that a MACOM HQ COMPACS Coordinator and a point of contact (POC) be designated at each BASOPS installation to assist during the data collection and evaluation effort. The data collection effort will be conducted in two phases, the first of which concerned those installations which have been designated as prototype test sites. The second phase, which includes the remaining BASOPS installations, commences upon receipt of this letter.
2. The Data Collection Sheet (DCS) for the second phase, DA Form 4360-R, Parts I and II, attached as Inclosure 1, is designed to obtain information from the Data Processing Installations (DPI) and BASOPS report users. It is concerned with current hard-copy paper report usage. Since the data obtained from these DCS will be used to design a standard COM System for BASOPS installations, it is essential that the response to each question be as accurate as possible and reflect the actual usage of the report.
3. The POC at each BASOPS installation is requested to identify reports and report users, reproduce and distribute the DCS, assist users in completing the DCS, and collate and validate responses. To assist POC in accomplishing the foregoing, a set of procedural guidelines has been prepared and is attached as Inclosure 2.
4. Completed DCS will be forwarded in keypunched format to HQDA (DAAG-AMZ-C), Forrestal Building, Washington, DC 20314, to arrive not later than 11 July 1975.

BY ORDER OF THE SECRETARY OF THE ARMY:

VERNE L. BOWERS
Major General, USA
The Adjutant General

2 Incl
as



DAAG-AMZ-C

SUBJECT: COMPACS Data Collection - (MICRODIS NR 4002-US5C)

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COMPACS DATA COLLECTION (PART 1 - DPI)

INTRODUCTION: Please read the instructions on the reverse before completing this data collection sheet. The information you provide will not be of any value unless all items are completed.

A. PRODUCT NAME (REPORT TITLE)

(1) (4)

B. DPI NUMBER

(5) (14)

C. PRODUCT CONTROL NUMBER (Left justily, space fill)

(15)

D. REPORT CLASSIFICATION
1 - Unclass 3 - Secret
2 - Conf 4 - Top Secret

(16) (18)

E. PRINT TIME
(In minutes)

(19)

F. PRODUCTION FREQUENCY
1 - As req 5 - Monthly
2 - Yearly 6 - Semi-monthly
3 - Quarterly 7 - Weekly
4 - Bi-monthly 8 - Daily

(20) (23)

G. NUMBER OF PAGES

(24)

H. PART PAPER
(1 - 6)

(25)

I. SIZE PAPER
1 - 8 x 10 1/2 or
8 1/2 x 11
2 - 11 x 14
3 - Other

(26)

J. SPECIAL FORM
1 - Yes
2 - No

(27) (29)

K. NO. OF REPRODUCTIONS
(Copies Reprinted)

(30)

L. COPIES RETAINED
BY DPI (Enter
0 through 9)

(31) (33)

M. DISTRIBUTION

N. METHOD OF DISTRIBUTION
1 - Yes
2 - No

(34) PICKUP

(35) HAND CARRY

(36) MAIL

(37) ELECTRONIC
TRANSMISSION

O. HANDLING
1 - Yes
2 - No

(38) BURST

(39) DECOLLATED

(40) BOUND

(41) PACKAGED,
BOXED

(42)

P. IS REPORT DISTRIBUTED
OUTSIDE INSTALLATION
(Higher headquarters, etc.)
1 - Yes
2 - No

(79)

Q. TRANSACTION CODE

(80)

R. CARD NUMBER

COMPACS DATA COLLECTION SHEET (PART I, DPI)

PURPOSE: The COMPACS DPI DATA COLLECTION SHEET will furnish information on current reports production to be used in planning Computer Output Microfilm (COM) system tests and design of an optimum COM system for BASOPS.

INSTRUCTIONS: Complete all items. Only the Product Control Number should be left justified, space filled. Use no dashes, hyphens, or special characters. Right justify and zero fill all other answers.

- Item A. Product Name (Report Title) - Self-explanatory.*
- Item B. DPI (Data Processing Installation) Number - Self-explanatory.*
- Item C. Product Control Number (PCN) - Enter the BASOPS product control number as it appears on the list provided by the POC. The entry should be left justified, space filled, using no dashes or special characters.*
- Item D. Report Classification - Indicate the security classification of the report.*
- Item E. Print Time - Enter the printing time, start to finish, in minutes.*
- Item F. Production Frequency - Enter the number corresponding to the report production frequency. If a recurring report is produced on demand, or on a frequency other than those listed, enter "1" (as req).*
- Item G. Number of Pages - Enter the average number of pages in a single copy of the report, including title pages and indexes if they are regularly produced with the report. If page counts are not available, use a factor of 200 pages per inch.*
- Item H. Part Paper - Enter the number of copies (1 through 6) usually printed in a single run.*
- Item I. Size Paper - Enter the number corresponding to the size paper that is normally used to print out the report. Standard computer print-out is 11" by 14"; 8" x 10½" or 8½" x 11" are letter sizes. For any other size, enter "3" for "Other."*
- Item J. Special Form - If the report is printed on any type of pre-printed form, enter "1" for "Yes."*
- Item K. Number of Reproductions - Enter the number of copies reproduced for distribution. Do not include the original reports produced on the printer. Do include all other copies produced, regardless of method (e.g., copiers, offset printing, photographic reproduction, etc.)*
- Item L. Copies Retained by DPI - Enter the number of copies retained by the DPI after distribution.*
- Item M. Distribution - Enter the number of points or offices to which the report is distributed. This is not necessarily the same as the number of copies, since one office may receive more than one copy.*
- Item N. Method of Distribution - Enter "1" for "Yes" or "2" for "No," for each method of distribution listed, i.e., if one copy is handcarried and the remainder are picked up, enter "1" in blocks (34) and (35) and "2" in the remainder of the blocks.*
- Item O. Handling - Enter "1" for "Yes" or "2" for "No" for each type of handling listed.*
- Item P. Report Distributed Outside the Installation - Enter "1" if the report is distributed to any user outside the installation, such as higher headquarters, or other parts of DoD, etc.*
- Item Q. Transaction Code - For study group use only.*
- Item R. Card Number - For study group use only.*

COMPACS DATA COLLECTION (PART 2 - USER)

FOR DPI USE ONLY - DO NOT WRITE IN THIS BLOCK

PRODUCT NAME

DPI CODE

(1)	(4)
<input type="text"/>	<input type="text"/>

PRODUCT CONTROL NUMBER

(5)	(14)
<input type="text"/>	<input type="text"/>

FOR POC USE ONLY - DO NOT WRITE IN THIS BLOCK

COPY NUMBER

(15)	(17)
<input type="text"/>	<input type="text"/>

TO BE COMPLETED BY USER

A. How many copies of this report are received by your office? (Right justify, i.e., write "2" as)

(18)	(19)
<input type="text"/>	<input type="text"/>

B. How many copies are used in your office?

(20)	(21)
<input type="text"/>	<input type="text"/>

C. Do you need more copies of the report to do your job more efficiently?

1. Yes
2. No

(22)
<input type="text"/>

D. Who uses this copy of the report? (Indicate the most frequent users.)

1. Commander
2. Staff action officers
3. Clerical personnel
4. Technicians
5. Others

(23)
<input type="text"/>

E. Is your copy of the report kept?

1. Yes 2. No

(24)
<input type="text"/>

F. Where is the copy filed? (If not filed, enter zero .)

1. In desk
2. In file cabinet
3. In security container
4. In hanging file
5. On open shelf file
6. Other file equipment

(25)
<input type="text"/>

G. What is done when the report is filed? (If not filed, enter zero .)

1. Replace the old report with the new report.
2. Just add the new report to the file.
3. Interfile segments or pages of the new report among other documents.

(26)
<input type="text"/>

H. How long is this copy of the report kept?

1. It is not kept.
2. Until a replacement is received.
3. Less than one year, but kept after replacement is received.
4. One to two years.
5. Over two years.
6. Until disposal is authorized.

(27)
<input type="text"/>

I. How many (linear) inches of storage space does an average copy of the report occupy? (How thick is the report?)

1. Less than one inch
2. One to two inches
3. Two to six inches
4. Over six inches

(28)
<input type="text"/>

J. On what size paper is this copy of the report? (The size of the copy you use.)

1. 8 1/2" by 11" or 8" x 10 1/2" (letter size)
2. 11" by 14" (standard computer printout)
3. Other

(29)
<input type="text"/>

K. What is the maximum number of people using this copy of the report?

(30)	(31)
<input type="text"/>	<input type="text"/>

L. Is the copy shared:

1. By dividing a single copy into sections and distributing the sections among the users?
2. By passing this copy from user to user as required?
3. By being centrally located?
4. Copy is not shared.

(32)
<input type="text"/>

M. How often must you wait to use copy while someone else is using it?

1. Never
2. Occasionally
3. Frequently

(33)
<input type="text"/>

N. How often is this copy of the report used? (If shared, total for all users.)

1. All day.
2. Daily, one or more times per day.
3. Not daily, but one or more times per week.
4. Less than once per week.
5. Never

(34)
<input type="text"/>

O. When you use this copy of the report, how long do you use it?

1. Less than five minutes per use.
2. Five minutes to an hour per use.
3. Over an hour at each use.
4. None of the above.

(35)
<input type="text"/>

P. Do you ever use this copy of the report to: (Indicate 1 - Yes or 2 - No for each item.)

1. Compare it with other reports.
2. Compare pages of this report with each other.
3. Make notes, entries or marks.
4. Send outside the BASOPS system.

(36)
<input type="text"/>

(37)
<input type="text"/>

(38)
<input type="text"/>

(39)
<input type="text"/>

Q. If notes are made on this copy, are they used:

1. To temporarily update or correct for your reference?
2. To submit changes for the next report (turnaround document)?
3. To add information or emphasis for your own use?
4. No notes are made.

(40)
<input type="text"/>

R. Where is this copy of the report used? (Enter 1 - Yes or 2 - No for each item.)

1. Office (less than 8 persons)
2. Office (8 or more persons)
3. Central file area
4. Warehouse
5. Garage/motor pool
6. Vehicle
7. Maintenance area
8. Field conditions
9. Garrison conditions
10. Laboratory

(41)
<input type="text"/>

(42)
<input type="text"/>

(43)
<input type="text"/>

(44)
<input type="text"/>

(45)
<input type="text"/>

(46)
<input type="text"/>

(47)
<input type="text"/>

(48)
<input type="text"/>

(49)
<input type="text"/>

(50)
<input type="text"/>

S. Do you make additional copies of: (Enter 1 - Yes or 2 - No for each item.)

1. Selected pages of the report?
2. The entire report?

(51)
<input type="text"/>

(52)
<input type="text"/>

T. Approximately how many pages are copied per month?

(53)	<input type="text"/>	<input type="text"/>	<input type="text"/>
------	----------------------	----------------------	----------------------

U. Have you ever used any kind of microfilm/microform before?

1. No
2. Yes, roll film
3. Yes, microfiche
4. Yes, more than one format

(54)
<input type="text"/>

V. Do you have a microfilm reader or reader/printer available to you?

1. Yes, roll film reader
2. Yes, microfiche reader
3. Yes, roll film reader/printer
4. Yes, microfiche reader/printer
5. Yes, other type
6. Yes, more than one type
7. No, none available
8. Don't know

(55)
<input type="text"/>

W. Do you know how to use a microfilm reader/printer?

1. Yes, roll film reader
2. Yes, microfiche reader
3. Yes, roll film reader/printer
4. Yes, microfiche reader/printer
5. Yes, other type
6. Yes, more than one type
7. No, don't know how to use any

(56)
<input type="text"/>

X. Do you feel this report could be used on microform? (Explain your answer in the Remarks block.)

1. Yes

3. No

2. Maybe

4. No opinion

(59)

Y. Transaction Code

2

(79)

Z. Card Number

2

(80)

REMARKS

INTRODUCTION: The BASOPS system is being studied to determine the feasibility of converting some BASOPS paper output to Computer Output Microform (COM). This study is called the Computer Output Microforms Program and Concept Study (COMPACS). The information requested on this COMPACS Data Collection Sheet will describe how BASOPS reports are used and stored, and identify users' requirements and problems. The information will help the COMPACS group evaluate the impact of converting the report to COM.

INSTRUCTIONS: Please answer each question carefully and as accurately as possible. Do not omit a question; enter the answer that most nearly applies. You may make comments in the space provided under Remarks.

Procedural Guidelines for COMPACS Data Collection Sheet

1. The BASOPS Installation Point of Contact (POC) will reproduce one set (Parts 1 & 2) of Data Collection Sheets (DCS) for each standard BASOPS report, listed at Attachment 1, which is currently produced at his Data Processing Installation (DPI). The POC will then forward the sets of DCS to the DPI.
2. DPI personnel will complete one Part 1 and the top portion of one Part 2 (labelled for DPI use only) for each BASOPS report cited above.
 - a. It is essential that the Product Name, DPI Code, and Product Control Number (PCN) be identical on both parts of the DCS.
 - b. It may be noted that an extra character has been added to several PCNs listed in Attachment 1. These characters have been assigned by the COMPACS Group to differentiate between various parts of a report or multiple reports documented under a single PCN.
 - c. The DPI will return the DCS to the POC with a list of the users to whom each copy of the report is distributed.
3. The POC will then reproduce the partially completed Part 2 in a sufficient quantity to provide one Part 2 for each report user; i.e.: if three copies of the report are produced, three copies of the Part 2 will be made. If a report is distributed in segments, a Part 2 may be provided for the user of each segment, or a representative sample of such users, to respond.
 - a. The POC will identify each copy by assigning it a sequential number in blocks 15-17. (For example, if three copies of a report are produced, they will be numbered 001, 002, and 003). These numbers have no intrinsic value other than to differentiate between copies of the report.
 - b. The POC will distribute a copy of Part 2 to each user to complete. If a single copy of the report has several users in one office, a single response will be prepared for that office. However, if an office receives several copies, a response will be prepared for each copy received.
4. To assist you in completing Part 2, the following describes the purpose of the questions:
 - a. Questions A, B, and C are concerned with the total number of copies received by an organization or office. Supervisor assistance may be needed for these entries. Questions D through X are concerned with the specific use of each individual copy of the report, and must be prepared by the primary user(s) of that copy.

b. Item D identifies the primary or most frequent users of the copy.

c. Items E through J pertain to the filing or storage requirements of the copy. Information concerning the size of the report should reflect the average size. Retention and filing practices described should be the normal procedures for that copy. If the procedure for filing that copy of the report differs from general filing procedures of the office for any reason, be sure to select the responses best describing the actual practice in filing that copy of the report.

d. Questions K, L, and M pertain to requirements and procedures for sharing the copy. Responses should reflect the usual rather than exceptional circumstances.

e. Questions N through R pertain to how, where, and when the report is used. The responses to questions P and R should reflect all situations which may be expected to apply to that copy. The other responses should describe the average or normal use.

f. Questions S and T identify the requirements for user reproduction of copies. All copies made by the user should be cited whether they are required for convenience, file requirements, transmission outside the office, or any other purpose.

g. Questions U through X will assist in determining the users' level of previous exposure to, or experience with, microforms. Previous usage could include on-the-job use or library and classroom experience.

h. Unique circumstances involved with the use of a report which may affect its suitability for conversion may be described in the Remarks section of Part 2.

5. POC will assemble the completed DCS, and match each Part 2 with the appropriate Part 1. The POC should examine the responses to verify that all questions have been answered and that the responses appear reasonable. Answers that appear improbable should be verified to insure that the question was not misinterpreted or that an incorrect response was not entered in error. The COMPACS Message File, Attachment 2, may be used as an aid in validating responses.

6. Responses to the completed Data Collection Sheets will be keypunched, utilizing standard 80-column tab cards. The keypunched cards, an 80-80 listing, and the completed Data Collection Sheets will be forwarded to HQDA (DAAG-AMZ-C), Forrestal Building, Washington, DC 20314. If questions concerning the data collection effort are unable to be resolved in command channels, they may be referred to the COMPACS Group, through the MACOM coordinator.

COMPACS MESSAGE FILE

CARD 1

A101	INVALID ADD.	CC 1-4 INVALID DPI.
A105	INVALID ADD.	CC 5-14 INVALID PRODUCT CONTROL NUMBER
A112	INVALID ADD.	'1' CARD SUBMITTED WITHOUT CORRESPONDING '2' CARD.
A115	INVALID ADD.	CC 15 MUST BE 1,2,3, OR 4.
A116	INVALID ADD.	CC 16 MUST BE ALL NUMERIC.
A119	INVALID ADD.	CC 19 MUST BE 1,2,3,4,5,6,7, OR 8.
A120	INVALID ADD.	CC 20-23 MUST BE ALL NUMERIC.
A124	INVALID ADD.	CC 24 MUST BE 0,1,2,3,4,5, OR 6.
A125	INVALID ADD.	CC 25 MUST BE 1,2, OR 3.
A126	INVALID ADD.	CC 26 MUST BE 1 OR 2.
A127	INVALID ADD.	CC 27-29 MUST BE NUMERIC.
A130	INVALID ADD.	CC 30 MUST BE NUMERIC.
A131	INVALID ADD.	CC 31-33 MUST BE NUMERIC.
A134	INVALID ADD.	CC 34 MUST BE 1 OR 2.
A135	INVALID ADD.	CC 35 MUST BE 1 OR 2.
A136	INVALID ADD.	CC 36 MUST BE 1 OR 2.
A137	INVALID ADD.	CC 37 MUST BE 1 OR 2.
A138	INVALID ADD.	CC 38 MUST BE 1 OR 2.
A139	INVALID ADD.	CC 39 MUST BE 1 OR 2.
A140	INVALID ADD.	CC 40 MUST BE 1 OR 2.
A141	INVALID ADD.	CC 41 MUST BE 1 OR 2.
A142	INVALID ADD.	CC 41 MUST BE 1 OR 2.

Incl 1 to Incl 2

COMPACS MESSAGE FILE

CARD 2

A201	INVALID ADD.	CC 1-4 INVALID DPI.
A205	INVALID ADD.	CC 5-14 INVALID PRODUCT CONTROL NUMBER.
A212	INVALID ADD.	'2' CARD SUBMITTED WITHOUT CORRESPONDING '1' CARD.
A218	INVALID ADD.	CC 18-19 MUST BE NUMERIC.
A220	INVALID ADD.	CC 20-21 MUST BE NUMERIC.
A222	INVALID ADD.	CC 22 MUST BE 1 OR 2.
A223	INVALID ADD.	CC 23 MUST BE 1,2,3,4,5, OR 6.
A224	INVALID ADD.	CC 24 MUST BE 1 OR 2.
A225	INVALID ADD.	CC 25 MUST BE 1,2,3,4,5, OR 6.
A226	INVALID ADD.	CC 26 MUST BE 1,2, OR 3.
A227	INVALID ADD.	CC 27 MUST BE 1,2,3,4,5, OR 6.
A228	INVALID ADD.	CC 28 MUST BE 1,2,3, OR 4.
A229	INVALID ADD.	CC 29 MUST BE 1,2, OR 3.
A230	INVALID ADD.	CC 30-31 MUST BE NUMERIC.
A232	INVALID ADD.	CC 32 MUST BE 1,2,3, OR 4.
A233	INVALID ADD.	CC 33 MUST BE 1,2, OR 3.
A234	INVALID ADD.	CC 34 MUST BE 1,2,3,4, OR 5.
A235	INVALID ADD.	CC 35 MUST BE 1,2,3, OR 4.
A236	INVALID ADD.	CC 36 MUST BE 1 OR 2.
A237	INVALID ADD.	CC 37 MUST BE 1 OR 2.
A238	INVALID ADD.	CC 38 MUST BE 1 OR 2.
A239	INVALID ADD.	CC 39 MUST BE 1 OR 2.
A240	INVALID ADD.	CC 40 MUST BE 1,2,3, OR 4.
A241	INVALID ADD.	CC 41 MUST BE 1 OR 2.
A242	INVALID ADD.	CC 42 MUST BE 1 OR 2.
A243	INVALID ADD.	CC 43 MUST BE 1 OR 2.
A244	INVALID ADD.	CC 44 MUST BE 1 OR 2.
A245	INVALID ADD.	CC 45 MUST BE 1 OR 2.
A246	INVALID ADD.	CC 46 MUST BE 1 OR 2.
A247	INVALID ADD.	CC 47 MUST BE 1 OR 2.
A248	INVALID ADD.	CC 48 MUST BE 1 OR 2.
A249	INVALID ADD.	CC 49 MUST BE 1 OR 2.
A250	INVALID ADD.	CC 50 MUST BE 1 OR 2.
A251	INVALID ADD.	CC 51 MUST BE 1 OR 2.
A252	INVALID ADD.	CC 52 MUST BE 1 OR 2.
A253	INVALID ADD.	CC 53-55 MUST BE NUMERIC.
A254	INVALID ADD.	CC 53-55 INCOMPATIBLE WITH CC 51.
A255	INVALID ADD.	CC 53-55 INCOMPATIBLE WITH CC 52.
A256	INVALID ADD.	CC 56 MUST BE 1,2,3, OR 4.
A257	INVALID ADD.	CC 57 MUST BE 1,2,3,4,5,6,7, OR 8.
A258	INVALID ADD.	CC 58 MUST BE 1,2,3,4,5,6, OR 7.
A259	INVALID ADD.	CC 59 MUST BE 1,2,3, OR 4.

Result of Data Collection for MICRODIS

I. DATA COLLECTION ON EXISTING SYSTEM

Data on the standard BASOPS outputs was collected by using a two-part Data Collection Sheet (DCS) for each report. Copies of the DCS are at inclosures 1 and 2. Part I was completed by the Data Processing Installation (DPI) personnel familiar with the production of the report. In most instances, coordination with the functional field proponent was required to obtain distribution information. Part II was completed by the users. The results of this data collection were used to prepare the MICRODIS and in the cost/benefit analysis. Detailed information, including profiles of the production of BASOPS reports at each DPI and of the production and use of each report in the system, is on file in the COMPACS' office.

A. DPI RESPONSES: The results of the Part I (DPI) data collection are summarized by DPI on the remaining pages in this section.

SITE R 102 Fort Belvoir

REPORTS 207

CLASSIFICATIONS: U 203 C 4 S TS

FREQUENCY:	AS REQ	41	MONTHLY	72	PART PAPER:	1	3	4	22
	YEARLY	1	S/MOLY	21		2	5	5	71
	QUARTER	5	WEEKLY	18		3	0	6	106
	BIMOLY	0	DAILY	48					
	3X/wk	1							

SIZE PAPER:	SPECIAL FORMS	0	PRINT TIME (mo)	1140
8 X 10 1/2	COPIES RETAINED BY DPI	0	VOLUME (pgs/mo)	13152
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	5
Other	INSTALLATION	0		

DISTRIBUTION:	HANDLING:		
PICKED UP	202	BURST	0
HAND CARRY	77	DECOL	161
MAILED	19	BOUND	0
ELECT/TRAN	8	BOXED	85

SITE R 111 Fort Ben Harrison

REPORTS 222

CLASSIFICATIONS: U 221 C 1 S TS

FREQUENCY:	AS REQ	33	MONTHLY	77	PART PAPER:	1	22	4	33
	YEARLY	0	S/MOLY	4		2	48	5	15
	QUARTER	13	WEEKLY	34		3	36	6	68
	BIMOLY	0	DAILY	31					
	3X/wk	30							

SIZE PAPER:	SPECIAL FORMS	5	PRINT TIME (mo)	927
8 X 10 1/2	COPIES RETAINED BY DPI	0	VOLUME (pgs/mo)	
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	0
Other	INSTALLATION	0		

DISTRIBUTION:	HANDLING:		
PICKED UP	1	BURST	0
HAND CARRY	221	DECOL	197
MAILED	0	BOUND	0
ELECT/TRAN	0	BOXED	0

SITE R 107 Fort Benning # REPORTS 207

CLASSIFICATIONS: U 206 C 1 S TS

FREQUENCY:	AS REQ	10	MONTHLY	85	PART PAPER:	1	1	4	3
	YEARLY	0	S/MOLY	0		2	3	5	37
	QUARTER	12	WEEKLY	21		3	22	6	141
	BIMOLY	3	DAILY	34					
		3X/wk	42						

SIZE PAPER:	SPECIAL FORMS	0	PRINT TIME (mo)	1657
8 X 10 1/2	COPIES RETAINED BY DPI	62	VOLUME (pgs/mo)	34234
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	66
Other	INSTALLATION	39		

DISTRIBUTION:	HANDLING:		
PICKED UP	174	BURST	142
HAND CARRY	89	DECOL	93
MAILED	1	BOUND	93
ELECT/TRAN	0	BOXED	0

SITE R 303 Fort Bliss # REPORTS 209

CLASSIFICATIONS: U 204 C 5 S TS

FREQUENCY:	AS REQ	35	MONTHLY	79	PART PAPER:	1	44	4	16
	YEARLY	0	S/MOLY	3		2	39	5	16
	QUARTER	10	WEEKLY	29		3	38	6	56
	BIMOLY	0	DAILY	53					
		3X/wk	0						

SIZE PAPER:	SPECIAL FORMS	3	PRINT TIME (mo)	1280
8 X 10 1/2	COPIES RETAINED BY DPI	2	VOLUME (pgs/mo)	35197
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	0
Other	INSTALLATION	0		

DISTRIBUTION:	HANDLING:		
PICKED UP	209	BURST	0
HAND CARRY	0	DECOL	162
MAILED	0	BOUND	0
ELECT/TRAN	0	BOXED	209

SITE S 300 Fort Bragg

REPORTS 309

CLASSIFICATIONS: U 305 C 4 S TS

FREQUENCY:	AS REQ	<u>1</u>	MONTHLY	<u>130</u>	PART PAPER:	1	<u>81</u>	4	<u>20</u>
	YEARLY	<u>1</u>	S/MOLY	<u>0</u>		2	<u>64</u>	5	<u>4</u>
	QUARTER	<u>1</u>	WEEKLY	<u>26</u>		3	<u>82</u>	6	<u>58</u>
	BIMOLY	<u>0</u>	DAILY	<u>49</u>					
		<u>3X/wk</u>	<u>101</u>						

SIZE PAPER:	SPECIAL FORMS	<u>0</u>	PRINT TIME (mo)	<u>994</u>
8 X 10 1/2 <u>0</u>	COPIES RETAINED BY DPI	<u>0</u>	VOLUME (pgs/mo)	<u>25600</u>
11 X 14 <u>309</u>	REPTS SENT OUTSIDE		REPRODUCTIONS	<u>0</u>
Other <u>0</u>	INSTALLATION	<u>0</u>		

DISTRIBUTION:	HANDLING:
PICKED UP <u>0</u>	BURST <u>0</u>
HAND CARRY <u>309</u>	DECOL <u>0</u>
MAILED <u>0</u>	BOUND <u>0</u>
ELECT/TRAN <u>0</u>	BOXED <u>309</u>

SITE S 370 Fort Campbell

REPORTS 167

CLASSIFICATIONS: U 167 C S TS

FREQUENCY:	AS REQ	<u>19</u>	MONTHLY	<u>53</u>	PART PAPER:	1	<u>6</u>	4	<u>22</u>
	YEARLY	<u>0</u>	S/MOLY	<u>18</u>		2	<u>14</u>	5	<u>8</u>
	QUARTER	<u>5</u>	WEEKLY	<u>24</u>		3	<u>24</u>	6	<u>93</u>
	BIMOLY	<u>0</u>	DAILY	<u>27</u>					
		<u>3X/wk</u>	<u>21</u>						

SIZE PAPER:	SPECIAL FORMS	<u>0</u>	PRINT TIME (mo)	<u>1191</u>
8 X 10 1/2 <u>0</u>	COPIES RETAINED BY DPI	<u>0</u>	VOLUME (pgs/mo)	<u>13679</u>
11 X 14 <u>167</u>	REPTS SENT OUTSIDE		REPRODUCTIONS	<u>0</u>
Other <u>0</u>	INSTALLATION	<u>28</u>		

DISTRIBUTION:	HANDLING:
PICKED UP <u>167</u>	BURST <u>128</u>
HAND CARRY <u>0</u>	DECOL <u>167</u>
MAILED <u>29</u>	BOUND <u>166</u>
ELECT/TRAN <u>15</u>	BOXED <u>85</u>

SITE S 430 Fort Carson

REPORTS 365

CLASSIFICATIONS: U 363 C 2 S TS

FREQUENCY:	AS REQ	43	MONTHLY	151	PART PAPER:	1	114	4	35
	YEARLY	3	S/MOLY	32		2	15	5	112
	QUARTER	19	WEEKLY	27		3	72	6	17
	BIMOLY	0	DAILY	90					
		3X/wk	0						

SIZE PAPER:	SPECIAL FORMS	2	PRINT TIME (mo)	7038
8 X 10 1/2	COPIES RETAINED BY DPI	86	VOLUME (pgs/mo)	81222
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	236
Other	INSTALLATION	107		

DISTRIBUTION:	HANDLING:		
PICKED UP	207	BURST	110
HAND CARRY	159	DECOL	254
MAILED	91	BOUND	24
ELECT/TRAN	5	BOXED	53

SITE H 602 Fort Detrick

REPORTS 148

CLASSIFICATIONS: U 148 C S TS

FREQUENCY:	AS REQ	26	MONTHLY	54	PART PAPER:	1	30	4	5
	YEARLY	0	S/MOLY	0		2	61	5	0
	QUARTER	7	WEEKLY	42		3	0	6	52
	BIMOLY	0	DAILY	19					
		3X/wk	0						

SIZE PAPER:	SPECIAL FORMS	0	PRINT TIME (mo)	1072
8 X 10 1/2	COPIES RETAINED BY DPI	148	VOLUME (pgs/mo)	4303
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	0
Other	INSTALLATION	0		

DISTRIBUTION:	HANDLING:		
PICKED UP	148	BURST	0
HAND CARRY	0	DECOL	147
MAILED	0	BOUND	0
ELECT/TRAN	0	BOXED	0

SITE S 680 Fort Devens

REPORTS 327

CLASSIFICATIONS: U 314 C 13 S _____ TS _____

FREQUENCY:	AS REQ	<u>33</u>	MONTHLY	<u>132</u>	PART PAPER:	1	<u>13</u>	4	<u>142</u>
	YEARLY	<u>4</u>	S/MOLY	<u>1</u>		2	<u>21</u>	5	<u>18</u>
	QUARTER	<u>22</u>	WEEKLY	<u>42</u>		3	<u>20</u>	6	<u>113</u>
	BIMOLY	<u>2</u>	DAILY	<u>91</u>					
	3X/wk	<u>0</u>							

SIZE PAPER:	SPECIAL FORMS	<u>5</u>	PRINT TIME (mo)	<u>2111</u>
8 X 10 1/2	COPIES RETAINED BY DPI	<u>0</u>	VOLUME (pgs/mo)	<u>29370</u>
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	<u>46</u>
Other	INSTALLATION	<u>33</u>		

DISTRIBUTION:	HANDLING:
PICKED UP <u>326</u>	BURST <u>0</u>
HAND CARRY <u>0</u>	DECOL <u>313</u>
MAILED <u>0</u>	BOUND <u>1</u>
ELECT/TRAN <u>0</u>	BOXED <u>227</u>

SITE R 201 Fort Dix

REPORTS 247

CLASSIFICATIONS: U 246 C 1 S _____ TS _____

FREQUENCY:	AS REQ	<u>16</u>	MONTHLY	<u>128</u>	PART PAPER:	1	<u>2</u>	4	<u>5</u>
	YEARLY	<u>1</u>	S/MOLY	<u>0</u>		2	<u>0</u>	5	<u>0</u>
	QUARTER	<u>10</u>	WEEKLY	<u>25</u>		3	<u>2</u>	6	<u>238</u>
	BIMOLY	<u>1</u>	DAILY	<u>63</u>					
	3X/wk	<u>3</u>							

SIZE PAPER:	SPECIAL FORMS	<u>2</u>	PRINT TIME (mo)	<u>1671</u>
8 X 10 1/2	COPIES RETAINED BY DPI	<u>2</u>	VOLUME (pgs/mo)	<u>39264</u>
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	<u>65</u>
Other	INSTALLATION	<u>2</u>		

DISTRIBUTION:	HANDLING:
PICKED UP <u>247</u>	BURST <u>93</u>
HAND CARRY <u>0</u>	DECOL <u>244</u>
MAILED <u>0</u>	BOUND <u>0</u>
ELECT/TRAN <u>0</u>	BOXED <u>2</u>

SITE R 103 Fort Eustis

REPORTS 205

CLASSIFICATIONS: U 205 C S TS

FREQUENCY:	AS REQ	21	MONTHLY	86	PART PAPER:	1	4	4	22
	YEARLY	0	S/MOLY	1		2	27	5	121
	QUARTER	8	WEEKLY	17		3	13	6	18
	BIMOLY	1	DAILY	71					
		3X/wk	0						

SIZE PAPER:		SPECIAL FORMS	2	PRINT TIME (mo)	1229
8 X 10 1/2		COPIES RETAINED BY DPI	0	VOLUME (pgs/mo)	22864
11 X 14	205	REPTS SENT OUTSIDE		REPRODUCTIONS	140
Other		INSTALLATION	0		

DISTRIBUTION:		HANDLING:	
PICKED UP	205	BURST	0
HAND CARRY	0	DECOL	205
MAILED	0	BOUND	0
ELECT/TRAN	0	BOXED	0

SITE H 604 Fitzsimons AMC

REPORTS 136

CLASSIFICATIONS: U 136 C S TS

FREQUENCY:	AS REQ	11	MONTHLY	62	PART PAPER:	1	11	4	15
	YEARLY	1	S/MOLY	5		2	3	5	0
	QUARTER	6	WEEKLY	13		3	38	6	69
	BIMOLY	0	DAILY	38					
		3X/wk	0						

SIZE PAPER:		SPECIAL FORMS	0	PRINT TIME (mo)	460
8 X 10 1/2		COPIES RETAINED BY DPI	136	VOLUME (pgs/mo)	6905
11 X 14	136	REPTS SENT OUTSIDE		REPRODUCTIONS	0
Other		INSTALLATION	0		

DISTRIBUTION:		HANDLING:	
PICKED UP	136	BURST	0
HAND CARRY	0	DECOL	125
MAILED	0	BOUND	0
ELECT/TRAN	0	BOXED	0

SITE R 108 Fort Gordon

REPORTS 228

CLASSIFICATIONS: U 225 C 3 S TS

FREQUENCY:	AS REQ	26	MONTHLY	100	PART PAPER:	1	109	4	16
	YEARLY	0	S/MOLY	6		2	0	5	0
	QUARTER	11	WEEKLY	32		3	48	6	55
	BIMOLY	0	DAILY	2					
		3X/wk	51						

SIZE PAPER:	SPECIAL FORMS	2	PRINT TIME (mo)	1760
8 X 10 1/2	COPIES RETAINED BY DPI	66	VOLUME (pgs/mo)	24484
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	374
Other	INSTALLATION	59		

DISTRIBUTION:	HANDLING:
PICKED UP	BURST
HAND CARRY	DECOL
MAILED	BOUND
ELECT/TRAN	BOXED

SITE S 102 Homestead (31st ADA BDE) # REPORTS 111

CLASSIFICATIONS: U 111 C S TS

FREQUENCY:	AS REQ	19	MONTHLY	34	PART PAPER:	1	30	4	16
	YEARLY	2	S/MOLY	12		2	35	5	3
	QUARTER	1	WEEKLY	2		3	16	6	11
	BIMOLY	0	DAILY	41					
		3X/wk	0						

SIZE PAPER:	SPECIAL FORMS	1	PRINT TIME (mo)	433
8 X 10 1/2	COPIES RETAINED BY DPI	0	VOLUME (pgs/mo)	4877
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	222
Other	INSTALLATION	16		

DISTRIBUTION:	HANDLING:
PICKED UP	BURST
HAND CARRY	DECOL
MAILED	BOUND
ELECT/TRAN	BOXED

SITE S 460 Fort Hood# REPORTS 319CLASSIFICATIONS: U 314 C 3 S 0 TS 2

FREQUENCY:	AS REQ	<u>33</u>	MONTHLY	<u>124</u>	PART PAPER:	1	<u>0</u>	4	<u>87</u>
	YEARLY	<u>11</u>	S/MOLY	<u>0</u>		2	<u>0</u>	5	<u>0</u>
	QUARTER	<u>23</u>	WEEKLY	<u>33</u>		3	<u>0</u>	6	<u>232</u>
	BIMOLY	<u>0</u>	DAILY	<u>69</u>					
		<u>3X/wk</u>	<u>26</u>						

SIZE PAPER:		SPECIAL FORMS	<u>0</u>	PRINT TIME (mo)	<u>5421</u>
8 X 10 1/2	<u>0</u>	COPIES RETAINED BY DPI	<u>0</u>	VOLUME (pgs/mo)	<u>53363</u>
11 X 14	<u>319</u>	REPTS SENT OUTSIDE		REPRODUCTIONS	<u>0</u>
Other	<u>0</u>	INSTALLATION	<u>0</u>		

DISTRIBUTION:		HANDLING:	
PICKED UP	<u>319</u>	BURST	<u>0</u>
HAND CARRY	<u>0</u>	DECOL	<u>319</u>
MAILED	<u>0</u>	BOUND	<u>0</u>
ELECT/TRAN	<u>0</u>	BOXED	<u>319</u>

SITE U 003 Fort Huachuca# REPORTS 206CLASSIFICATIONS: U 198 C 6 S 0 TS 2

FREQUENCY:	AS REQ	<u>59</u>	MONTHLY	<u>61</u>	PART PAPER:	1	<u>23</u>	4	<u>109</u>
	YEARLY	<u>0</u>	S/MOLY	<u>0</u>		2	<u>27</u>	5	<u>13</u>
	QUARTER	<u>10</u>	WEEKLY	<u>17</u>		3	<u>22</u>	6	<u>12</u>
	BIMOLY	<u>1</u>	DAILY	<u>58</u>					
		<u>3X/wk</u>	<u>0</u>						

SIZE PAPER:		SPECIAL FORMS	<u>5</u>	PRINT TIME (mo)	<u>3124</u>
8 X 10 1/2	<u>0</u>	COPIES RETAINED BY DPI	<u>0</u>	VOLUME (pgs/mo)	<u>21445</u>
11 X 14	<u>205</u>	REPTS SENT OUTSIDE		REPRODUCTIONS	<u>0</u>
Other	<u>1</u>	INSTALLATION	<u>8</u>		

DISTRIBUTION:		HANDLING:	
PICKED UP	<u>206</u>	BURST	<u>1</u>
HAND CARRY	<u>0</u>	DECOL	<u>181</u>
MAILED	<u>1</u>	BOUND	<u>0</u>
ELECT/TRAN	<u>2</u>	BOXED	<u>162</u>

SITE S 175 Fort Indiantown Gap

REPORTS 316

CLASSIFICATIONS: U 316 C S TS

FREQUENCY:	AS REQ	58	MONTHLY	141	PART PAPER:	1	11	4	34
	YEARLY	2	S/MOLY	2		2	16	5	2
	QUARTER	9	WEEKLY	27		3	15	6	238
	BIMOLY	0	DAILY	50					
		3X/wk	27						

SIZE PAPER:

8 X 10 1/2	2
11 X 14	314
Other	0

SPECIAL FORMS 2

COPIES RETAINED BY DPI 0

REPTS SENT OUTSIDE

INSTALLATION 97

PRINT TIME (mo) 2090

VOLUME (pgs/mo) 36682

REPRODUCTIONS 0

DISTRIBUTION:

PICKED UP	314
HAND CARRY	1
MAILED	0
ELECT/TRAN	0

HANDLING:

BURST	0
DECOL	305
BOUND	0
BOXED	0

SITE R 202 Fort Jackson

REPORTS 348

CLASSIFICATIONS: U 348 C S TS

FREQUENCY:	AS REQ	82	MONTHLY	113	PART PAPER:	1	59	4	89
	YEARLY	2	S/MOLY	6		2	61	5	37
	QUARTER	19	WEEKLY	28		3	46	6	56
	BIMOLY	2	DAILY	79					
		3X/wk	17						

SIZE PAPER:

8 X 10 1/2	0
11 X 14	347
Other	1

SPECIAL FORMS 0

COPIES RETAINED BY DPI 30

REPTS SENT OUTSIDE

INSTALLATION 63

PRINT TIME (mo) 1531

VOLUME (pgs/mo) 41243

REPRODUCTIONS 0

DISTRIBUTION:

PICKED UP	348
HAND CARRY	276
MAILED	61
ELECT/TRAN	47

HANDLING:

BURST	0
DECOL	347
BOUND	173
BOXED	58

SITE R 301 Fort Knox

REPORTS 365

CLASSIFICATIONS: U 362 C 3 S TS

FREQUENCY:	AS REQ	51	MONTHLY	169	PART PAPER:	1	11	4	52
	YEARLY	1	S/MOLY	1		2	141	5	16
	QUARTER	8	WEEKLY	44		3	36	6	109
	BIMOLY	1	DAILY	72					
		3X/wk	18						

SIZE PAPER:	SPECIAL FORMS	3	PRINT TIME (mo)	5528
8 X 10 1/2	COPIES RETAINED BY DPI	0	VOLUME (pgs/mo)	90432
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	0
Other	INSTALLATION	43		

DISTRIBUTION:	HANDLING:		
PICKED UP	365	BURST	0
HAND CARRY	0	DECOL	251
MAILED	0	BOUND	0
ELECT/TRAN	0	BOXED	365

SITE R 113 Fort Leavenworth

REPORTS 394

CLASSIFICATIONS: U 393 C 1 S TS

FREQUENCY:	AS REQ	65	MONTHLY	149	PART PAPER:	1	15	4	38
	YEARLY	3	S/MOLY	0		2	50	5	40
	QUARTER	25	WEEKLY	44		3	181	6	70
	BIMOLY	2	DAILY	106					
		3X/wk	0						

SIZE PAPER:	SPECIAL FORMS	6	PRINT TIME (mo)	1994
8 X 10 1/2	COPIES RETAINED BY DPI	0	VOLUME (pgs/mo)	30021
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	10
Other	INSTALLATION	67		

DISTRIBUTION:	HANDLING:		
PICKED UP	393	BURST	0
HAND CARRY	1	DECOL	347
MAILED	4	BOUND	1
ELECT/TRAN	1	BOXED	1

SITE R 104 Fort Lee

REPORTS 297

CLASSIFICATIONS: U 296 C 1 S TS

FREQUENCY:	AS REQ	105	MONTHLY	97	PART PAPER:	1	81	4	24
	YEARLY	4	S/MOLY	0		2	31	5	0
	QUARTER	11	WEEKLY	24		3	0	6	161
	BIMOLY	0	DAILY	56					
		3X/wk	0						

SIZE PAPER:

8 X 10 1/2	3
11 X 14	292
Other	2

SPECIAL FORMS 6

COPIES RETAINED BY DPI 2

REPTS SENT OUTSIDE
INSTALLATION 42

PRINT TIME (mo) 2132

VOLUME (pgs/mo) 31230

REPRODUCTIONS 9

DISTRIBUTION:

PICKED UP	297
HAND CARRY	197
MAILED	0
ELECT/TRAN	0

HANDLING:

BURST	0
DECOL	224
BOUND	0
BOXED	0

SITE R 204 Fort Leonard Wood

REPORTS 414

CLASSIFICATIONS: U 410 C 4 S TS

FREQUENCY:	AS REQ	62	MONTHLY	182	PART PAPER:	1	22	4	141
	YEARLY	3	S/MOLY	7		2	48	5	69
	QUARTER	29	WEEKLY	37		3	12	6	122
	BIMOLY	0	DAILY	68					
		3X/wk	26						

SIZE PAPER:

8 X 10 1/2	2
11 X 14	408
Other	4

SPECIAL FORMS 6

COPIES RETAINED BY DPI 0

REPTS SENT OUTSIDE
INSTALLATION 100

PRINT TIME (mo) 1505

VOLUME (pgs/mo) 32711

REPRODUCTIONS 42

DISTRIBUTION:

PICKED UP	414
HAND CARRY	1
MAILED	0
ELECT/TRAN	0

HANDLING:

BURST	1
DECOL	403
BOUND	0
BOXED	412

SITE S 600 Fort Lewis

REPORTS 174

CLASSIFICATIONS: U 174 C 2 S TS

FREQUENCY:	AS REQ	42	MONTHLY	82	PART PAPER:	1	31	4	17
	YEARLY	0	S/MOLY	3		2	33	5	23
	QUARTER	7	WEEKLY	23		3	2	6	68
	BIMOLY	0	DAILY	17					
		3X/wk	0						

SIZE PAPER:	SPECIAL FORMS	0	PRINT TIME (mo)	1814
8 X 10 1/2	COPIES RETAINED BY DPI	0	VOLUME (pgs/mo)	35698
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	0
Other	INSTALLATION	0		

DISTRIBUTION:	HANDLING:		
PICKED UP	174	BURST	1
HAND CARRY	0	DECOL	86
MAILED	0	BOUND	0
ELECT/TRAN	0	BOXED	174

SITE R 109 Fort McClellan

REPORTS 213

CLASSIFICATIONS: U 210 C 2 S 1 TS

FREQUENCY:	AS REQ	45	MONTHLY	54	PART PAPER:	1	18	4	17
	YEARLY	0	S/MOLY	0		2	39	5	16
	QUARTER	6	WEEKLY	38		3	24	6	99
	BIMOLY	0	DAILY	32					
		3X/wk	38						

SIZE PAPER:	SPECIAL FORMS	5	PRINT TIME (mo)	1066
8 X 10 1/2	COPIES RETAINED BY DPI	67	VOLUME (pgs/mo)	18555
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	0
Other	INSTALLATION	43		

DISTRIBUTION:	HANDLING:		
PICKED UP	211	BURST	10
HAND CARRY	89	DECOL	211
MAILED	41	BOUND	3
ELECT/TRAN	23	BOXED	78

SITE S 001 Fort McPherson# REPORTS 437CLASSIFICATIONS: U 433 C 4 S _____ TS _____

FREQUENCY:	AS REQ	<u>194</u>	MONTHLY	<u>71</u>	PART PAPER:	1	<u>377</u>	4	<u>3</u>
	YEARLY	<u>1</u>	S/MOLY	<u>0</u>		2	<u>1</u>	5	<u>0</u>
	QUARTER	<u>7</u>	WEEKLY	<u>21</u>		3	<u>3</u>	6	<u>53</u>
	BIMOLY	<u>4</u>	DAILY	<u>80</u>					
		<u>3X/wk</u>		<u>59</u>					

SIZE PAPER:		SPECIAL FORMS	<u>6</u>	PRINT TIME (mo)	<u>239</u>
8 X 10 1/2	<u>1</u>	COPIES RETAINED BY DPI	<u>0</u>	VOLUME (pgs/mo)	<u>13534</u>
11 X 14	<u>431</u>	REPTS SENT OUTSIDE		REPRODUCTIONS	<u>965</u>
Other	<u>5</u>	INSTALLATION	<u>1</u>		

DISTRIBUTION:		HANDLING:	
PICKED UP	<u>375</u>	BURST	<u>2</u>
HAND CARRY	<u>0</u>	DECOL	<u>13</u>
MAILED	<u>0</u>	BOUND	<u>0</u>
ELECT/TRAN	<u>0</u>	BOXED	<u>0</u>

SITE S 580 Fort Meade# REPORTS 232CLASSIFICATIONS: U 230 C 2 S _____ TS _____

FREQUENCY:	AS REQ	<u>100</u>	MONTHLY	<u>120</u>	PART PAPER:	1	<u>16</u>	4	<u>34</u>
	YEARLY	<u>1</u>	S/MOLY	<u>0</u>		2	<u>28</u>	5	<u>23</u>
	QUARTER	<u>0</u>	WEEKLY	<u>5</u>		3	<u>22</u>	6	<u>109</u>
	BIMOLY	<u>1</u>	DAILY	<u>5</u>					
		<u>3X/wk</u>		<u>0</u>					

SIZE PAPER:		SPECIAL FORMS	<u>1</u>	PRINT TIME (mo)	<u>232</u>
8 X 10 1/2	<u>0</u>	COPIES RETAINED BY DPI	<u>0</u>	VOLUME (pgs/mo)	<u>50361</u>
11 X 14	<u>232</u>	REPTS SENT OUTSIDE		REPRODUCTIONS	<u>30</u>
Other	<u>0</u>	INSTALLATION	<u>0</u>		

DISTRIBUTION:		HANDLING:	
PICKED UP	<u>231</u>	BURST	<u>1</u>
HAND CARRY	<u>0</u>	DECOL	<u>231</u>
MAILED	<u>0</u>	BOUND	<u>1</u>
ELECT/TRAN	<u>0</u>	BOXED	<u>231</u>

SITE V 001 MDW

REPORTS 414

CLASSIFICATIONS: U 412 C 2 S TS

FREQUENCY:	AS REQ	118	MONTHLY	140	PART PAPER:	1	26	4	179
	YEARLY	9	S/MOLY	0		2	32	5	2
	QUARTER	15	WEEKLY	37		3	27	6	148
	BIMOLY	3	DAILY	92					
	3X/wk	0							

SIZE PAPER:	SPECIAL FORMS	4	PRINT TIME (mo)	1616
8 X 10 1/2	COPIES RETAINED BY DPI	0	VOLUME (pgs/mo)	30396
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	848
Other	INSTALLATION	141		

DISTRIBUTION:	HANDLING:		
PICKED UP	414	BURST	47
HAND CARRY	14	DECOL	367
MAILED	14	BOUND	102
ELECT/TRAN	0	BOXED	2

SITE S 107 Fort Ord

REPORTS 233

CLASSIFICATIONS: U 232 C 1 S TS

FREQUENCY:	AS REQ	54	MONTHLY	72	PART PAPER:	1	14	4	31
	YEARLY	0	S/MOLY	0		2	61	5	40
	QUARTER	7	WEEKLY	29		3	31	6	56
	BIMOLY	0	DAILY	35					
	3X/wk	36							

SIZE PAPER:	SPECIAL FORMS	5	PRINT TIME (mo)	3871
8 X 10 1/2	COPIES RETAINED BY DPI	0	VOLUME (pgs/mo)	46026
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	8
Other	INSTALLATION	2		

DISTRIBUTION:	HANDLING:		
PICKED UP	233	BURST	0
HAND CARRY	0	DECOL	218
MAILED	0	BOUND	1
ELECT/TRAN	2	BOXED	1

SITE S 108 Fort Polk

REPORTS 207

CLASSIFICATIONS: U 204 C 3 S TS

FREQUENCY:	AS REQ	18	MONTHLY	90	PART PAPER:	1	0	4	10
	YEARLY	2	S/MOLY	14		2	64	5	2
	QUARTER	14	WEEKLY	10		3	31	6	100
	BIMOLY	0	DAILY	30					
		3X/wk	29						

SIZE PAPER:	SPECIAL FORMS	1	PRINT TIME (mo)	1943
8 X 10 1/2	COPIES RETAINED BY DPI	123	VOLUME (pgs/mo)	23386
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	2
Other	INSTALLATION	38		

DISTRIBUTION:	HANDLING:		
PICKED UP	207	BURST	0
HAND CARRY	0	DECOL	207
MAILED	0	BOUND	0
ELECT/TRAN	0	BOXED	0

SITE S 109 Presidio of SF

REPORTS 435

CLASSIFICATIONS: U 434 C 1 S TS

FREQUENCY:	AS REQ	98	MONTHLY	134	PART PAPER:	1	1	4	3
	YEARLY	4	S/MOLY	0		2	1	5	0
	QUARTER	17	WEEKLY	24		3	0	6	430
	BIMOLY	0	DAILY	79					
		3X/wk	79						

SIZE PAPER:	SPECIAL FORMS	3	PRINT TIME (mo)	4204
8 X 10 1/2	COPIES RETAINED BY DPI	0	VOLUME (pgs/mo)	59825
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	0
Other	INSTALLATION	1		

DISTRIBUTION:	HANDLING:		
PICKED UP	435	BURST	0
HAND CARRY	0	DECOL	433
MAILED	0	BOUND	0
ELECT/TRAN	0	BOXED	0

SITE S 800 Alaska (172d INF BDE)

REPORTS 206

CLASSIFICATIONS: U 206 C S TS

FREQUENCY:	AS REQ	94	MONTHLY	50	PART PAPER:	1	8	4	34
	YEARLY	0	S/MOLY	0		2	3	5	0
	QUARTER	6	WEEKLY	17		3	1	6	160
	BIMOLY	0	DAILY	33					
		3X/wk	6						

SIZE PAPER:	SPECIAL FORMS	0	PRINT TIME (mo)	851
8 X 10 1/2	COPIES RETAINED BY DPI	0	VOLUME (pgs/mo)	22171
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	10
Other	INSTALLATION	0		

DISTRIBUTION:	HANDLING:
PICKED UP	BURST
HAND CARRY	DECOL
MAILED	BOUND
ELECT/TRAN	BOXED

SITE S 650 Ft Riley

REPORTS 242

CLASSIFICATIONS: U 241 C 1 S TS

FREQUENCY:	AS REQ	71	MONTHLY	86	PART PAPER:	1	90	4	13
	YEARLY	1	S/MOLY	4		2	52	5	3
	QUARTER	4	WEEKLY	17		3	46	6	38
	BIMOLY	1	DAILY	36					
		3X/wk	22						

SIZE PAPER:	SPECIAL FORMS	4	PRINT TIME (mo)	2013
8 X 10 1/2	COPIES RETAINED BY DPI	8	VOLUME (pgs/mo)	37418
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	1
Other	INSTALLATION	5		

DISTRIBUTION:	HANDLING:
PICKED UP	BURST
HAND CARRY	DECOL
MAILED	BOUND
ELECT/TRAN	BOXED

SITE R 110 Fort Rucker # REPORTS 242

CLASSIFICATIONS: U 241 C 1 S TS

FREQUENCY:	AS REQ	59	MONTHLY	69	PART PAPER:	1	3	4	8
	YEARLY	0	S/MOLY	5		2	0	5	0
	QUARTER	13	WEEKLY	37		3	0	6	231
	BIMOLY	1	DAILY	55					
		3X/wk	3						

SIZE PAPER:	SPECIAL FORMS	5	PRINT TIME (mo)	1035
8 X 10 1/2	COPIES RETAINED BY DPI	0	VOLUME (pgs/mo)	16232
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	2
Other	INSTALLATION	49		

DISTRIBUTION:	HANDLING:	
PICKED UP	BURST	0
HAND CARRY	DECOL	216
MAILED	BOUND	0
ELECT/TRAN	BOXED	4

SITE S 570 Fort Sam Houston # REPORTS 326

CLASSIFICATIONS: U 326 C S TS

FREQUENCY:	AS REQ	111	MONTHLY	116	PART PAPER:	1	26	4	79
	YEARLY	1	S/MOLY	0		2	7	5	203
	QUARTER	10	WEEKLY	24		3	10	6	1
	BIMOLY	0	DAILY	64					
		3X/wk	0						

SIZE PAPER:	SPECIAL FORMS	3	PRINT TIME (mo)	3565
8 X 10 1/2	COPIES RETAINED BY DPI	0	VOLUME (pgs/mo)	39832
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	4
Other	INSTALLATION	1		

DISTRIBUTION:	HANDLING:	
PICKED UP	BURST	0
HAND CARRY	DECOL	326
MAILED	BOUND	34
ELECT/TRAN	BOXED	34

SITE S 710 Hawaii (USA SPT CMD)# REPORTS 213CLASSIFICATIONS: U 197 C 16 S TS

FREQUENCY:	AS REQ	<u>36</u>	MONTHLY	<u>81</u>	PART PAPER:	1	<u>42</u>	4	<u>7</u>
	YEARLY	<u>1</u>	S/MOLY	<u>10</u>		2	<u>13</u>	5	<u>97</u>
	QUARTER	<u>13</u>	WEEKLY	<u>32</u>		3	<u>20</u>	6	<u>34</u>
	BIMOLY	<u>0</u>	DAILY	<u>40</u>					
	3X/wk	<u>0</u>							

SIZE PAPER:	SPECIAL FORMS	<u>0</u>	PRINT TIME (mo)	<u>701</u>	
8 X 10 1/2	<u>0</u>	COPIES RETAINED BY DPI	<u>0</u>	VOLUME (pgs/mo)	<u>20162</u>
11 X 14	<u>213</u>	REPTS SENT OUTSIDE		REPRODUCTIONS	<u>0</u>
Other	<u>0</u>	INSTALLATION	<u>0</u>		

DISTRIBUTION:	HANDLING:		
PICKED UP	<u>213</u>	BURST	<u>0</u>
HAND CARRY	<u>0</u>	DECOL	<u>206</u>
MAILED	<u>0</u>	BOUND	<u>106</u>
ELECT/TRAN	<u>0</u>	BOXED	<u>148</u>

SITE S 720 Hawaii (USA SPT CMD)# REPORTS 96CLASSIFICATIONS: U 94 C 2 S TS

FREQUENCY:	AS REQ	<u>42</u>	MONTHLY	<u>32</u>	PART PAPER:	1	<u>0</u>	4	<u>0</u>
	YEARLY	<u>1</u>	S/MOLY	<u>2</u>		2	<u>0</u>	5	<u>0</u>
	QUARTER	<u>4</u>	WEEKLY	<u>15</u>		3	<u>0</u>	6	<u>96</u>
	BIMOLY	<u>0</u>	DAILY	<u>0</u>					
	3X/wk	<u>0</u>							

SIZE PAPER:	SPECIAL FORMS	<u>0</u>	PRINT TIME (mo)	<u>293</u>	
8 X 10 1/2	<u>0</u>	COPIES RETAINED BY DPI	<u>0</u>	VOLUME (pgs/mo)	<u>11737</u>
11 X 14	<u>96</u>	REPTS SENT OUTSIDE		REPRODUCTIONS	<u>0</u>
Other	<u>0</u>	INSTALLATION	<u>0</u>		

DISTRIBUTION:	HANDLING:		
PICKED UP	<u>96</u>	BURST	<u>0</u>
HAND CARRY	<u>0</u>	DECOL	<u>96</u>
MAILED	<u>0</u>	BOUND	<u>0</u>
ELECT/TRAN	<u>0</u>	BOXED	<u>96</u>

SITE S 112 Fort Sheridan

REPORTS 222

CLASSIFICATIONS: U 220 C 2 S TS

FREQUENCY:	AS REQ	64	MONTHLY	64	PART PAPER:	1	33	4	11
	YEARLY	0	S/MOLY	0		2	22	5	28
	QUARTER	5	WEEKLY	16		3	78	6	49
	BIMOLY	3	DAILY	28					
		3X/wk		42					

SIZE PAPER:		SPECIAL FORMS	2	PRINT TIME (mo)	1278
8 X 10 1/2	2	COPIES RETAINED BY DPI	1	VOLUME (pgs/mo)	23191
11 X 14	220	REPTS SENT OUTSIDE		REPRODUCTIONS	0
Other	0	INSTALLATION	69		

DISTRIBUTION:		HANDLING:	
PICKED UP	222	BURST	87
HAND CARRY	0	DECOL	187
MAILED	69	BOUND	0
ELECT/TRAN	0	BOXED	0

SITE R 302 Fort Sill

REPORTS 201

CLASSIFICATIONS: U 198 C 3 S TS

FREQUENCY:	AS REQ	71	MONTHLY	55	PART PAPER:	1	1	4	10
	YEARLY	0	S/MOLY	6		2	12	5	48
	QUARTER	8	WEEKLY	23		3	12	6	118
	BIMOLY	0	DAILY	38					
		3X/wk		0					

SIZE PAPER:		SPECIAL FORMS	0	PRINT TIME (mo)	-
8 X 10 1/2	3	COPIES RETAINED BY DPI	3	VOLUME (pgs/mo)	31110
11 X 14	198	REPTS SENT OUTSIDE		REPRODUCTIONS	0
Other	0	INSTALLATION	77		

DISTRIBUTION:		HANDLING:	
PICKED UP	201	BURST	0
HAND CARRY	72	DECOL	129
MAILED	72	BOUND	0
ELECT/TRAN	0	BOXED	72

SITE S 113 Fort Stewart

REPORTS 340

CLASSIFICATIONS: U 337 C 3 S 0 TS 0

FREQUENCY:	AS REQ	67	MONTHLY	112	PART PAPER:	1	0	4	179
	YEARLY	1	S/MOLY	0		2	2	5	0
	QUARTER	18	WEEKLY	49		3	0	6	159
	BIMOLY	0	DAILY	93					
	3X/wk	0							

SIZE PAPER:	SPECIAL FORMS	5	PRINT TIME (mo)	1596
8 X 10 1/2	COPIES RETAINED BY DPI	1	VOLUME (pgs/mo)	28869
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	1
Other	INSTALLATION	1		

DISTRIBUTION:	HANDLING:		
PICKED UP	340	BURST	0
HAND CARRY	0	DECOL	334
MAILED	0	BOUND	2
ELECT/TRAN	1	BOXED	105

SITE H 608 Walter Reed AMC

REPORTS 20

CLASSIFICATIONS: U 20 C S TS

FREQUENCY:	AS REQ	4	MONTHLY	6	PART PAPER:	1	0	4	0
	YEARLY	0	S/MOLY	0		2	0	5	0
	QUARTER	0	WEEKLY	6		3	11	6	9
	BIMOLY	0	DAILY	4					
	3X/wk	0							

SIZE PAPER:	SPECIAL FORMS	20	PRINT TIME (mo)	280
8 X 10 1/2	COPIES RETAINED BY DPI	0	VOLUME (pgs/mo)	3560
11 X 14	REPTS SENT OUTSIDE		REPRODUCTIONS	0
Other	INSTALLATION	0		

DISTRIBUTION:	HANDLING:		
PICKED UP	20	BURST	2
HAND CARRY	0	DECOL	18
MAILED	0	BOUND	2
ELECT/TRAN	0	BOXED	18

B. USER RESPONSES. The user responses to the DCS questions, from the 39 sites at which data was collected, are summarized below:

QUESTION: a. (Inappropriate for collation of responses.)

QUESTION: b. (Inappropriate for collation of responses.)

QUESTION: c. Do you need more copies of the report to do your job more efficiently?

RESPONSES: 1. Yes .06
2. No .94

CONCLUSION: Sufficient copies of most reports are produced and distributed under the existing (paper) system.

QUESTION: d. Who uses this copy of the report?

RESPONSES: 1. Commander .04
2. Staff action officers' .05
3. Clerical personnel .45
4. Technicians .34
5. Others .09
6. Higher Headquarters .03

CONCLUSION: Most reports are used by clerical and technical personnel.

QUESTION: e. Is your copy of the report kept?

RESPONSES: 1. Yes .88
2. No .12

CONCLUSION: Most reports are kept.

QUESTION: f. Where is the copy filed?

RESPONSES: 1. In desk. .09
2. In file cabinet. .33
3. In security container. .02
4. In hanging file. .05
5. On open shelf file. .43
6. Other file equipment. .08

CONCLUSION: Most reports are filed in open shelf files or in a file cabinet.

QUESTION: g. What is done when report is filed?

RESPONSES:	1. Replace the old report with the new report.	<u>.24</u>
	2. Just add the new report to the file.	<u>.64</u>
	3. Interfile segments or pages of new report among other documents.	<u>.01</u>
	4. Report not filed.	<u>.11</u>

CONCLUSION: Most reports are added to the file.

QUESTION: h. How long is this copy of the report kept?

RESPONSES:	1. It is not kept.	<u>.10</u>
	2. Until a replacement is received.	<u>.22</u>
	3. Less than one year, but kept after replacement is received.	<u>.27</u>
	4. One to two years.	<u>.18</u>
	5. Over two years.	<u>.06</u>
	6. Until disposal is authorized.	<u>.17</u>

CONCLUSION: Most reports are kept less than one year.

QUESTION: i. How many (linear) inches of storage space does an average copy of the report occupy?

RESPONSES:	1. Less than one inch.	<u>.72</u>
	2. One to two inches.	<u>.16</u>
	3. Two to six inches.	<u>.08</u>
	4. Over six inches.	<u>.04</u>

CONCLUSION: The majority of reports require less than one inch of storage space.

QUESTION: j. On what size paper is this copy of the report?

RESPONSES:	1. 8 1/2 X 11" or 8"X10 1/2"	<u>.09</u>
	2. 11"X14	<u>.89</u>
	3. Other	<u>.02</u>

CONCLUSION: Almost all BASOPS reports are produced on 11"x14" computer output paper.

QUESTION: k. (Inappropriate for collation of responses.)

QUESTION: 1. Is the copy shared:

RESPONSES:	1. By dividing a single copy into sections and distributing the sections among users?	<u>.10</u>
	2. By passing this copy from user to user as required?	<u>.13</u>
	3. By being centrally located?	<u>.49</u>
	4. Copy not shared.	<u>.28</u>

CONCLUSION: Most reports are shared from a central location.

QUESTION: m. How often must you wait to use copy while someone else is using it?

RESPONSES:	1. Never.	<u>.73</u>
	2. Occasionally.	<u>.25</u>
	3. Frequently.	<u>.02</u>

CONCLUSION: Wait time to use a report is rarely a problem.

QUESTION: n. How often is this copy of the report used?

RESPONSES:	1. All day.	<u>.04</u>
	2. Daily, one or more times per day.	<u>.26</u>
	3. Not daily, but one or more times per week.	<u>.29</u>
	4. Less than once per week.	<u>.33</u>
	5. Never.	<u>.08</u>

CONCLUSION: Frequency of report use ranged about equally from less than once a week to one or more times a day.

QUESTION: o. When you use this copy of the report, how long do you use it?

RESPONSES:	1. Less than five minutes per use.	<u>.20</u>
	2. Five minutes to an hour per use.	<u>.54</u>
	3. Over an hour at each use.	<u>.13</u>
	4. None of the above.	<u>.13</u>

CONCLUSION: Most reports are used less than an hour per usage.

QUESTION: p. Do you ever use this copy of the report to:

RESPONSES:	1. Compare with other reports.	YES	<u>.70</u>	NO	<u>.30</u>
	2. Compare pages of this report with each other.	YES	<u>.24</u>	NO	<u>.76</u>
	3. Make notes, entries or marks.	YES	<u>.53</u>	NO	<u>.47</u>
	4. Send outside the installation.	YES	<u>.10</u>	NO	<u>.90</u>

CONCLUSIONS: Comparisons and annotations are made to about half of the reports. Also, few report are sent outside the installation.

QUESTION: q. If notes are made on this copy, are they used:

RESPONSES:	1. To temporarily update or correct for your reference?	<u>.19</u>
	2. To submit changes for the next report?	<u>.20</u>
	3. To add information for your use?	<u>.21</u>
	4. No notes are made.	<u>.40</u>

CONCLUSION: There is no one reason greater than another for annotation of reports.

QUESTION: r. Where is this copy of report used?

RESPONSES:	1. Office (less than 8 persons).	YES	<u>.51</u>	NO	<u>.49</u>
	2. Office (more than 8 persons).	YES	<u>.43</u>	NO	<u>.57</u>
	3. Central file area.	YES	<u>.24</u>	NO	<u>.76</u>
	4. Warehouse.	YES	<u>.01</u>	NO	<u>.99</u>
	5. Garage/Motor Pool.	YES	<u>.01</u>	NO	<u>.99</u>
	6. Vehicle.	YES	<u>.01</u>	NO	<u>.99</u>
	7. Maintenance area.	YES	<u>.01</u>	NO	<u>.99</u>
	8. Field conditions.	YES	<u>.09</u>	NO	<u>.91</u>
	9. Garrison conditions.	YES	<u>.29</u>	NO	<u>.71</u>
	10. Laboratory.	YES	<u>.01</u>	NO	<u>.99</u>

CONCLUSION: Most reports are used in an office environment.

QUESTION: s. Do you make additional copies of:

RESPONSES:	1. Selected pages of the report.	YES	<u>.04</u>	NO	<u>.96</u>
	2. The entire report.	YES	<u>.01</u>	NO	<u>.99</u>

CONCLUSION: Reports or pages of reports are rarely reproduced.

QUESTION: u. Have you ever used any kind of Microfilm/
Microform before?

RESPONSES:	1. No.	<u>.65</u>
	2. Yes, Roll Film.	<u>.10</u>
	3. Yes, Microfiche.	<u>.15</u>
	4. Yes, more than one format.	<u>.10</u>

CONCLUSION: Majority of users have no experience with
microforms.

QUESTION: v. (Inappropriate for collation of responses.)

QUESTION: w. (Inappropriate for collation of responses.)

QUESTION: x. Do you feel this report could be used on
microform?

RESPONSES:	1. Yes.	<u>.29</u>
	2. Maybe.	<u>.10</u>
	3. No.	<u>.45</u>
	4. No opinion.	<u>.16</u>

CONCLUSION: Almost half the users thought their report could
not be used on microform.

ANNEX I, Benchmark Test Results
(No basic document - visuals only)

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BASOPS UNIQUES

COM SOFTWARE CONSIDERATIONS

1. REPORT SELECTION

- a. STANDARD PCN TABLE
- b. MULTIPLE PART REPORTS
- c. NO END OF FILE BETWEEN REPORTS
- d. FIXED PCN EACH-RECORD
- e. FIXED PCN CONTROL-RECORD
- f. FLOATING PCN

2. UNIQUE DISTRIBUTION

3. SORT/STACKING FEATURE

4. CLASSIFIED REPORTS

5. NON PRINTABLE CHARACTERS

S T A N F I N S

S I D P E R S

S A I L S

X X X X X

X X X X X

X X X X X

X

X

X

X

X

X

REPRESENTATIVE BASOPS CYCLE OUTPUT

SYSTEMS	SPOOLS	REPORTS	PAGES
<u>SAILS</u>			
A. DAILY	18	30	1499
B. STOCKFUND	4	7	1114
<u>SIDPERS</u>			
A. OUTLOGGER	1	6	632
B. COMD/STAFF	1	7	1546
C. AUTO	1	31	3418
<u>STANFINS</u>	1	35	371
TOTALS	26	116	8580

BASOPS VERSUS COM (VOLUME COMPARISON)

	FT CARSON (7 Oct 75)	FT LEWIS (10 Oct 75)	FT HUACHUCA (11 Oct 75)	FT SAM HOUSTON (28 Oct 75)
<u>BASOPS ENVIRONMENT</u>				
A. NUMBER OF REPORTS	116	79	79	37
B. NUMBER OF PAGES	8580	5967	5967	2613
<u>COMPACS ENVIRONMENT</u>				
A. NUMBER OF REPORTS				
(1) HARDCOPY	53	5	11	23
(2) FICHE	70	74	68	14
B. NUMBER OF PAGES				
(1) HARDCOPY	3676	120	1561	908
(2) FICHE	7515	5847	4406	1705
C. TOTAL NUMBER OF FICHE				
(1) SAILS	12			8
(2) SIDPERS	21	31	22	
(3) STANFINS	2	2	2	
	<u>35</u>	<u>33</u>	<u>24</u>	<u>8</u>

BASOPS VERSUS COM (COMPUTER/COM TIME)

	FT CARSON S/360-40 (7 Oct 75)	FT LEWIS S/360-40 (10 Oct 75)	FT HUACHUCA S/360-30 (11 Oct 75)	FT SAM HOUSTON S/360-50 (28 Oct 75)
BASOPS SPOOL PROCESS (ALL REPORTS)	388	198	200	237
MISO / VENDOR COM PROCESS				
A. REPORT SELECTION/STACKING, INDEXING AND TITLING	118	34	79 *	44
B. BASOPS SPOOL PROCESS (LESS SELECTED REPORTS FOR COM)	128	3	61	86
BASOPS SPOOL PROCESS VS COM (+ OR - FACTORS)	246 - 142	37 - 161	140 - 60	130 - 107
FICHE RECORDING AND PROCESSING	55	52	41	10

* STANFINS PROCESSED ON CDC 6500

ANNEX J, Implementation Mode Factors

Implementation Mode Factors
(ONE Visual Only)

Page

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IMPLEMENTATION MODE FACTORS

	(SHORT)	(MID)	(LONG)
1. STANDARD SOFTWARE			
a. REPORT SELECTION	NO	YES	YES
b. REPORT STACKING	NO	YES	YES
c. TITLING	NO	YES	YES
d. INDEXING	NO	YES	YES
2. SOFTWARE RESPONSIBILITIES:			
a. COMPUTER SYSTEMS COMMAND	NO	YES	YES
b. INSTALLATION MISO	YES	NO	NO
c. SUPPORTING VENDOR	YES	YES	NO
3. SOFTWARE PREPARATION:			
a. HIGHEST	NO	NO	YES
b. MID	NO	YES	NO
c. LEAST	YES	NO	NO
4. SECOND PASS REQUIREMENT	YES	YES	NO
5. COMPUTER RUN TIME:			
a. HIGHEST	YES	NO	NO
b. MID	NO	YES	NO
c. LEAST	NO	NO	YES
6. COM PROCUREMENT:			
a. SINGLE VENDOR	YES	YES	YES
b. MULTIPLE VENDOR	NO	YES	NO
7. INHOUSE/CONTRACTOR FLEXIBILITY	NO	YES	NO

ANNEX K, COM Software Specifications

Page

General Functional System Requirements
(GFSR) [COMPACS']

K-2

Detailed BASOPS-COM software information will be available, when finalized, from the USA Computer Systems Command.

K-1

1. GENERAL FUNCTIONAL SYSTEM REQUIREMENTS (GFSR).

1.1. BASOPS-COM software must provide an interface between the principal BASOPS application systems (SAILS, SIDPERS, and STANFINS) and COM hardware. To support this interface, an on-line product control table (PCT) is required for user control of report selection, stacking, titling and indexing options. Table entries must be present for each BASOPS report to be selected for COM, and the access key is designated the standard product control number (PCN). To support user control of the PCT, a utility program is required for maintenance, i.e., delete, add and/or change of options. Actual conversion of the application spool tapes to COM format will be accomplished by a combination of USACSC and COM vendor software modules. These two modules, linked to form one program package, must produce a spool tape formatted for the COM recorder. As such, the USACSC module must perform the actual report selection and stacking of reports, and provide a standard format interface record, together with titling and indexing parameters extracted from the PCT. These records will then be passed to COM vendor software for translation and conversion of the carriage control characters, titling and indexing, and generation of any additional control records required by the COM recorder. Each COM vendor will furnish and maintain his own supporting software in accordance with Army standards.

1.2. Under STADS-COM, reports will be recorded on microfiche within the following established standards.

1.2.1. Recording will be at an effective reduction ratio of 48X on 105mm film. As illustrated in figure 1, and in accordance with military specification MIL-F-80242, film, microfiche 48X, dated 15 March 1974, and MIL-STD-399, microform formats, dated 12 November 1974, the sequence of frames across the 105mm film width is called a "Column", and the sequence of frames in the standard length of 148mm is called a "Row".

1.2.2. Both the header area and row "A" of the microfiche are reserved for specific titling described in paragraph 1.3. (header area) and 1.4. (Row "A"). Therefore, the first frame for recording of reports is frame "B1", while the last frame for recording of reports is frame "018". In the event indexing (discussed in paragraph 1.5.) is desired, frame "018" is designated the index frame.

1.2.3. The recording of BASOPS reports on STADS-COM microfiche is permitted in either of two modes. These modes, identified as "single" and "stacked" are as follows:

1.2.3.1. Single Mode: The recording of a single report, designated by the user for COM, on a single or sequential group of microfiche.

1.2.3.2. Stacked Mode: The recording of multiple reports designated by the user for COM, on a single or sequential group of microfiche. Entry into this mode is not permitted for classified reports.

1.3. Header Area: As illustrated in figures 2 thru 6, the header area is reserved for eye readable titling of microfiche within the following parameters:

1.3.1. Segment "A" is fixed at four (4) frames for two (2) lines of titling at six (6) title characters per frame. Title is left adjusted to the first title character position within the segment, thereby allowing for a maximum of twelve (12) title characters per line. Title is reserved for the report or microfiche protective markings or security classification and declassification date, applicable code or Army regulation as determined by the responsible HQDA system proponent. (Example, figure 2 and 3).

1.3.2. Segment "B" is fixed at four (4) frames for two (2) lines of titling at ten (10) title characters per frame. Title is left adjusted to the second title character position within the segment, thereby allowing for a maximum of nineteen (19) title characters per line. Segment is reserved for system identification, cycle date, and cycle number.

1.3.3. Segment "C" is fixed at six (6) frames for two (2) lines of titling at ten (10) title characters per frame. Title is left adjusted to the second titling character position within the segment, thereby allowing for a maximum of twenty-nine (29) title characters per line. Segment is reserved for report title within a single mode or the constant "stacked reports" within a stacked mode. Report title will result as an extract from the report as defined by user supplied parameters. These parameters will identify the line number, location and number of positions of the report title.

1.3.4. Segment "D" is fixed at three (3) frames for two (2) lines of titling at ten (10) title characters per frame. Title is left adjusted to the second title character position within the segment, thereby allowing for a maximum of fourteen (14) title characters per line. Segment is reserved for user determination.

1.3.5. Segment "E" is fixed at one (1) frame. Titling is system generated, right adjusted to the last title character position within the segment, and represents the fiche number and the constant "end" for a single microfiche or the last fiche of a multiple group. Zero suppress is required for fiche number.

1.4. Row "A": Row "A" is fixed at eighteen (18) frames for two (2) lines of eye readable titling for indexing at ten (10) title characters per frame. For either single or stacked modes, titling is reserved within the following parameters:

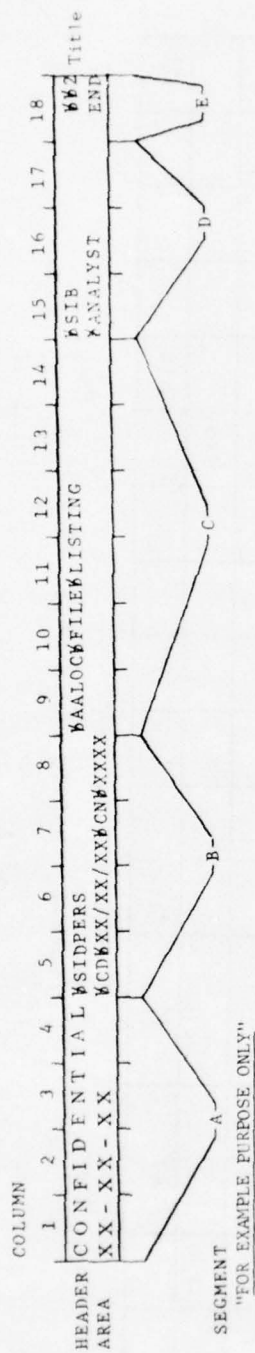
1.4.1. Single Mode: As illustrated in figures 4 and 5, title indexing represents the range of specific data element or major sequence break within the report content, i.e., the first and last data elements such as the name of an individual contained on the first and last line of the first and last page respectively, or the major sequence of the report such as "unit processing code" or "originator code". In either case, index represents a data extract from the report based on user supplied parameters. These parameters will identify the line number, location and number of positions of the data element for the index.

1.4.2. Stacked Mode: As illustrated in figure 6, title indexing represents the standard six (6) position product control number (PCN) for those reports selected in the stacked mode. Title is left adjusted to the first title character position within the frame in which the index appears. Sequence of reports is by PCN within a user supplied distribution identifier.

1.5. Index: As discussed in paragraph 1.2.2., an index to the microfiche, when desired, will be located in frame "018". The index frame is to be segmented into four (4) separate columns within the frame as illustrated in figure 7. Each column (63 lines maximum) is divided into two (2) areas to include the row/column and the indexing data for each page recorded. Indexing data are extracted from the report pages by user supplied parameters. The user must supply the line number, location, and the number of positions (up to 28 maximum). The row/column data is system generated.

HEADER AREA	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ROW A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ROW B	B1													B15				
ROW C		C2													C16			
ROW D			D3													D17		
ROW E				E4													E18	
ROW F					F5													
ROW G						G6												
ROW H							H7											
ROW I								I8										
ROW J									J9									
ROW K										K10								
ROW L											L11							
ROW M												M12						
ROW N													N13					
ROW O														O14				O18

FIGURE 1. BASOPS-COM MICROFICHE FORMAT



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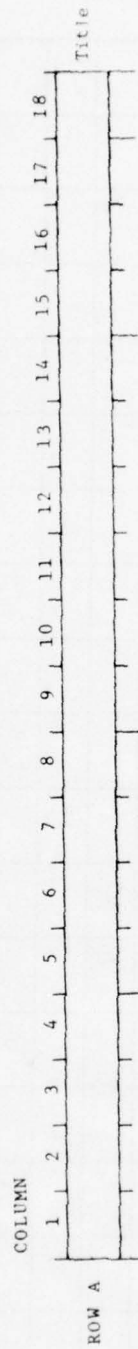
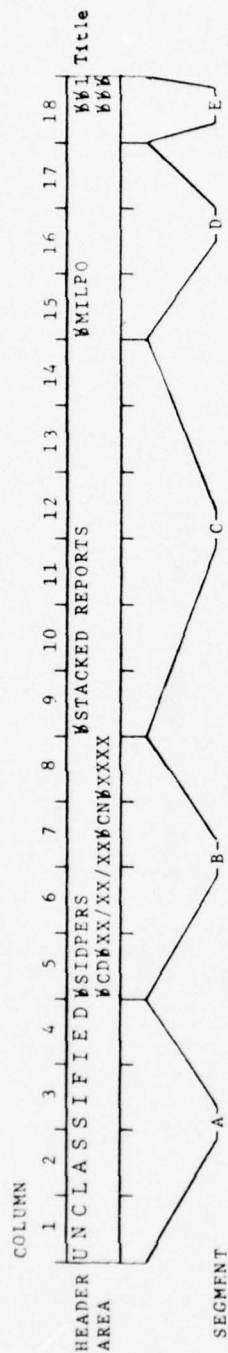


Figure 2. REPORT CLASSIFICATION.



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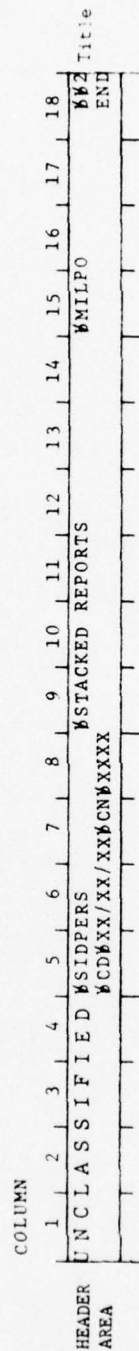
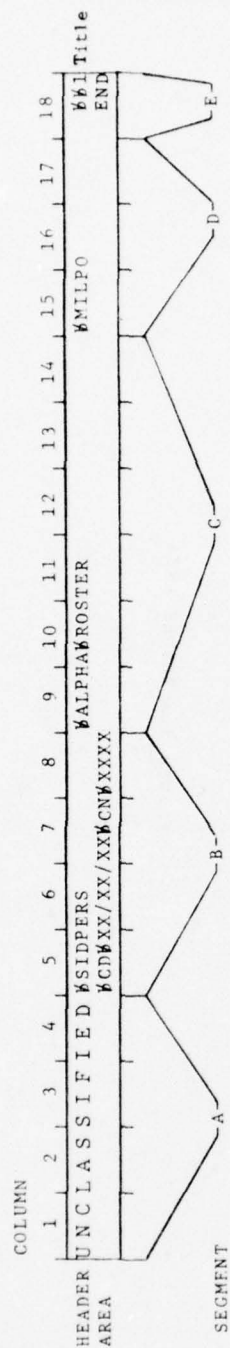


Figure 3. HEADER AREA



K
-
R

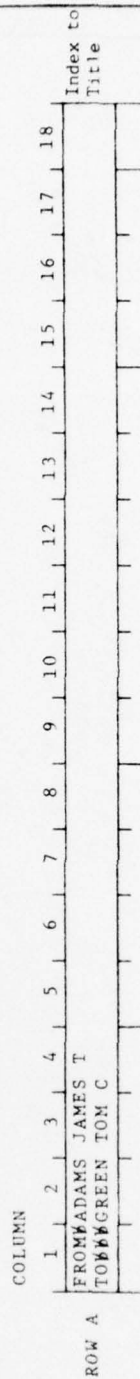
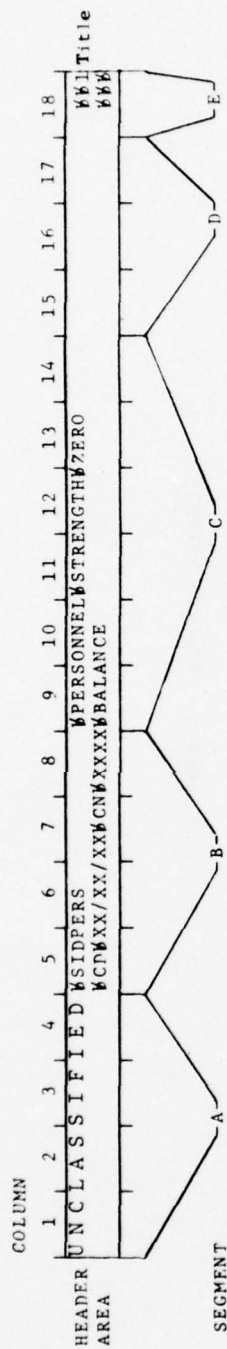


Figure 4. INDEX BY DATA EXTRACT



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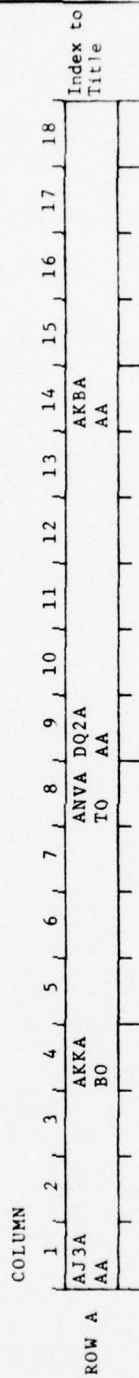
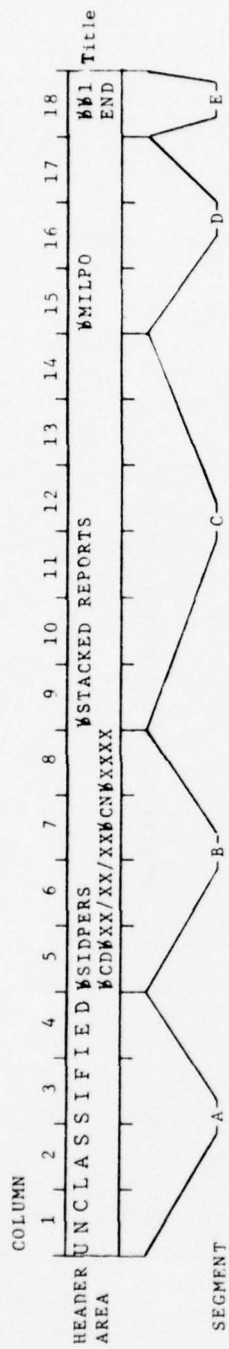


Figure 5. INDEX BY DATA EXTRACT.



K-10

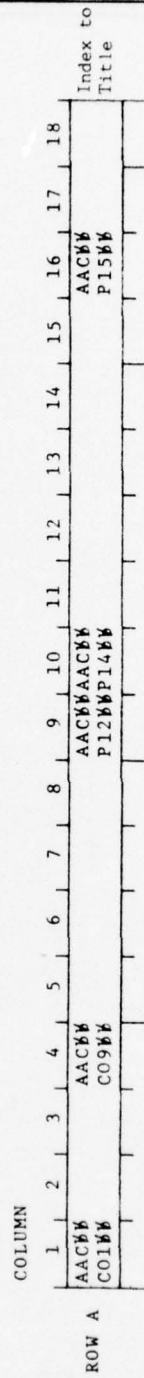


Figure 6. STACKED REPORTS.

COLUMN 1

COLUMN 2

COLUMN 3

COLUMN 4

B-1 X	X I-5 X	X B10 X	X I14 X	X
H-5 X	X O-9 X	X H14 X	X N18 X	X

ANNEX L, BASOPS-COM Milestone Schedule

Page

[Revised] BASOPS-COM Milestone Schedule

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BASOPS-COM MILESTONE SCHEDULE

MILESTONE/RESPONSIBILITY

ESTIMATED COMPLETION DATES

	A*	B	C
1. SOFTWARE DEVELOPMENT.			
A. SPECIFICATIONS (TAG/CSC).....	31 MAR 76	30 JUN 76	30 JUN 76
B. TITLING/INDEXING (TAG/COM-VENDOR).....	15 JUL 76	1 AUG 76	1 AUG 76
C. REPORT SELECTION (CSC).....	15 JUL 76	15 SEP 76	15 SEP 76
D. ENVIRONMENTAL TEST (CSC/TAG).....	15 AUG 76	15 NOV 76	15 OCT 76
E. PROTOTYPE.			
1. FORT CARSON.....	25 AUG 76	20 NOV 76	22 OCT 76
2. FORT LEWIS.....	31 AUG 76	20 NOV 76	22 OCT 76
2. COM SPECIFICATIONS ISSUED TO GSA (TAG/GSA).....	15 SEP 76	22 NOV 76	15 SEP 76
3. REVIEW BY GSA (GSA/TAG).....	21 SEP 76	26 NOV 76	21 SEP 76
4. RFP PUBLISHED BY GSA (GSA).....	24 SEP 76	1 DEC 76	24 SEP 76
5. PRE-BIDDERS CONFERENCE (GSA/TAG/CSC).....	5 OCT 76	10 DEC 76	5 OCT 76
6. TEST MATERIAL (BENCHMARK) DISTRIBUTED TO VENDORS (GSA/TAG)....	12 OCT 76	17 DEC 76	12 OCT 76
7. CUTOFF FOR ADDITIONAL DATA TO PARTICIPATING VENDORS (TAG).....	25 OCT 76	30 DEC 76	25 OCT 76
8. SCHEDULE BENCHMARK (TAG/CSC).....	27 OCT 76	3 JAN 77	27 OCT 76
9. PERFORM BENCHMARK (TAG/CSC/MISO/COM-VENDORS).....	15 NOV 76	20 JAN 77	15 NOV 76
10. BEST AND FINAL OFFERS SUBMITTED (COM-VENDORS/GSA).....	1 DEC 76	7 FEB 77	1 DEC 76
11. AWARD OF CONTRACT (GSA).....	15 DEC 76	21 FEB 77	15 DEC 76
12. BASOPS-COM EXTENSION (TAG/CSC/PA).			
1. COMPACTS TEST SITES.....	31 JAN 77	5 APR 77	31 JAN 77
2. INTERIM-COM SITES.....	28 FEB 77	5 MAY 77	28 FEB 77
3. REMAINING SITES.....	31 MAR 78	5 JUN 78	31 MAR 78

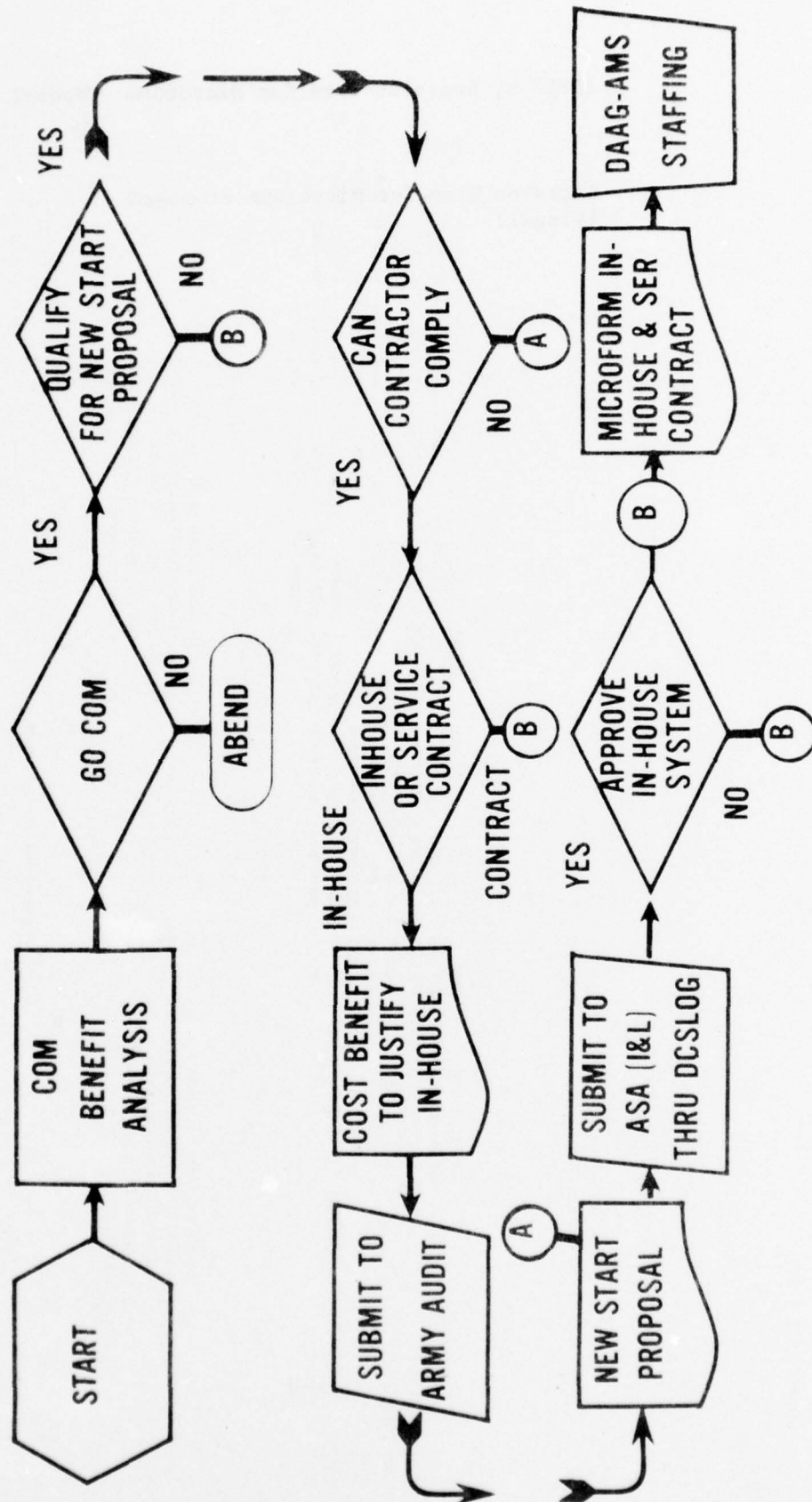
ANNEX M, Decision Tree for Microform Proposal

Page

Decision Tree for Microform Proposal
(Visual)

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DECISION TREE FOR MICROFORM PROPOSAL



ANNEX N, Lease vs Purchase Analysis

	<u>Page</u>
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Inclosure 2 - Lease vs. Purchase for COM Recorder	N-3
Inclosure 3 - Lease vs Purchase for Film Processor	N-4
Inclosure 4 - Lease vs. Purchase for Duplicators	N-5

COM Lease vs. Purchase Analysis

- (1) Reporting DPI: N/A
 (2) DPI Number: N/A
 (3) Computer Configuration: N/A
 (4) Computer Configuration Number: N/A
 (5) Projected Release Date: N/A
 (6) Preparation Date: 4 December 1975
 (7) Point of Contact: Ed White
 (8) Option Date: Unknown
 (9) Economic Life of COM: 5 Years *
 (10) Discount Rate: 10%

Project Number	Appropriation	Quantity	Model Number	Model Name	Date of Installation (F)	Remaining Economic Life (G)	Adjusted Unit Purchase Price (H)	Salvage Value (I)	Annual Maintenance Cost (Purchase) (J)	Annual Lease Cost (including Maint) (K)	Present Value of Purchase (L)	Present Value of Leasing (N)	Ratio of Leasing: Purchase (N)
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(N)	(N)
OMA 1	OMA 1	1	COM Recorder	COM Recorder	Day 1	5.00	\$86,470	\$17,294	\$7578	\$25044	\$105333	\$9600	.94
OMA 1	OMA 1	1	Film Processor	Film Processor	Day 1	5.00	8,754	1,751	1218	4008	12457	15940	1.28
OMA 1	OMA 1	1	Duplicator	Duplicator	Day 1	3.00	15,289	3,058	1366	5342	16443	13937	.84

* Three years for the Duplicator

Lease vs. Purchase for COM Recorder

Present Value Purchase -- Five (5) Year Economic Life

Year	Cash Flow	PV Factor	Present Value
<u>0</u>	<u>\$86,470</u>	<u>1.000</u>	<u>\$86,470</u>
5	-17,294	.652	-11,275
0-5	7,578	3.977	30,138
			<u>\$105,333</u>

Present Value Lease -- Five (5) Year Economic Life

Year	Cash Flow	PV Factor	Present Value
<u>0-5</u>	<u>\$25,044</u>	<u>3.977</u>	<u>\$99,600</u>

$$\frac{M}{L} \frac{99600}{105333} = .94$$

Lease vs. Purchase for Film Processor

Present Value Purchase -- Five (5) Year Economic Life			
	<u>Year</u>	<u>Cash Flow</u>	<u>PV Factor</u>
L	0	\$8,754	1.000
	5	-1,751	.652
	0-5	1,218	3.977
			<u>Present Value</u>
			\$8,754
			-1,141
			<u>4,844</u>
			\$12,457

Present Value Lease -- Five (5) Year Economic Life			
	<u>Year</u>	<u>Item</u>	<u>PV Factor</u>
M	0-5	\$4,008	3.977
			<u>Present Value</u>
			\$15,940

$$\frac{M}{L} = \frac{15940}{12457} = 1.28$$

Lease vs. Purchase for Duplicators

Present Value Purchase -- Three (3) Year Economic Life

	Year	Cash Flow	PV Factor	Present Value
L	0	\$15,289	1.000	\$15,289
	3	-3,058	.788	-2,410
	0-3	1,366	2.609	3,564
				<u>\$16,443</u>

Present Value Lease -- Three (3) Year Economic Life

	Year	Item	PV Factor	Present Value
M	0-3	\$5,342	2.609	<u>\$13,937</u>

$$\frac{M}{L} = \frac{13937}{16443} = .84$$

ANNEX O, Cost Benefit Analysis (CBA) and Economic Analysis

	<u>Page</u>
Cost Benefit Analysis (By Individual Installation)	0-2
Economic Analysis (Overall)	0-42
Economic Analysis (By Individual Installation)	0-43

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT BELVOIR

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	09228.00			
SAILS	00000.00	DPI	00000000	00000.00
STANFINS	06612.80	USER	0025740	00643.50
RECOMMENDED	06652.00			
		TOTAL ADDITIONAL REPRODUCTION COST		000643.50
TOTAL ADP PAPER COST	022492.80	TOTAL PAPER COST		0023136.30

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST	IN-HOUSE	INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00		READERS	180	36000.00
READER-PRINTERS	4	4000.00		READER-PRINTERS	4	4000.00
SITE PREPARATION		1000.00		FILM PROCESSOR		8754.00
TOTAL INVESTMENT COST		41000.00		SITE PREPARATION		2000.00
ANNUAL OPERATING COST				TOTAL INVESTMENT COST		50754.00

VOLUME (TOTAL FRAMES/YEAR)	00412910	ANNUAL OPERATING COST	
MASTER MICROFICHE	002014	COM EQUIPMENT LEASE	
DUPLICATE MICROFICHE	00032224	RECORDER	25044.00
ADP PAPER		DUPLICATOR	5342.00
USER SUPPLIES		PRODUCTION SUPPLIES	
READER-PRINTER		FILM	8100.00
MISCELLANEOUS		CHEMICALS	1620.00
		MISCELLANEOUS	1080.00

TOTAL ANNUAL OPERATING COST

00009393.30

TOTAL SERVICE CONTRACT COST

000050393.30

ADP PAPER	000789.00
MAINTENANCE	1218.00
USER SUPPLIES	

READER-PRINTER	480.00
MISCELLANEOUS	600.00
TOTAL ANNUAL OPERATING COST	00042653.00

TOTAL IN-HOUSE COST

000093407.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT BENJAMIN HARRISON

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	03544.40	DPI	00000000	00000.00
SAILS	00000.00	USER	0003096	00077.40
STANFINS	15392.55			
RECOMMENDED	05058.70	TOTAL ADDITIONAL REPRODUCTION COST		000077.40
TOTAL ADP PAPER COST	023995.65	TOTAL PAPER COST		0024073.05

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST	IN-HOUSE	INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00	READERS		180	36000.00
READER-PRINTERS	4	4000.00	READER-PRINTERS		4	4000.00
SITE PREPARATION		1000.00	FILM PROCESSOR			8754.00
TOTAL INVESTMENT COST		41000.00	SITE PREPARATION			2000.00
ANNUAL OPERATING COST			TOTAL INVESTMENT COST			50754.00

VOLUME (TOTAL FRAMES/YEAR)	00586026	COM EQUIPMENT LEASE			
MASTER MICROFICHE	002858	RECORDER			25044.00
DUPLICATE MICROFICHE	00045728	DUPPLICATOR			5342.00
ADP PAPER					
USER SUPPLIES			PRODUCTION SUPPLIES		
READER-PRINTER		480.00	FILM		8100.00
MISCELLANEOUS		600.00	CHEMICALS		1620.00
			MISCELLANEOUS		1080.00

TOTAL ANNUAL OPERATING COST	00011677.04	ADP PAPER			000434.00
TOTAL SERVICE CONTRACT COST	000052677.04	MAINTENANCE			1218.00
		USER SUPPLIES			
		READER-PRINTER			480.00
		MISCELLANEOUS			600.00
		TOTAL ANNUAL OPERATING COST			00042298.00
		TOTAL IN-HOUSE COST			000093052.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT BENNING

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	19836.95	DPI	00003456	00026.95
SAILS	00000.00	USER	0175039	04377.22
STANFINS	25502.90			
RECOMMENDED	15834.05	TOTAL ADDITIONAL REPRODUCTION COST		004404.17
TOTAL ADP PAPER COST	061173.90	TOTAL PAPER COST		0065578.07

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST	IN-HOUSE	INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00		READERS	180	36000.00
READER-PRINTERS	4	4000.00		READER-PRINTERS	4	4000.00
SITE PREPARATION		1000.00		FILM PROCESSOR		8754.00
TOTAL INVESTMENT COST		41000.00		SITE PREPARATION		2000.00
				TOTAL INVESTMENT COST		50754.00

ANNUAL OPERATING COST

VOLUME (TOTAL FRAMES/YEAR)	01230892
MASTER MICROFICHE	006004
DUPLICATE MICROFICHE	00096064
ADP PAPER	
USER SUPPLIES	
READER-PRINTER	
MISCELLANEOUS	

COM EQUIPMENT LEASE

REORDER	25044.00
DUPLICATOR	5342.00

PRODUCTION SUPPLIES

FILM	8100.00
CHEMICALS	1620.00
MISCELLANEOUS	1080.00

TOTAL ANNUAL OPERATING COST

00021721.84

TOTAL SERVICE CONTRACT COST

000062721.84

ADP PAPER	001369.00
MAINTENANCE	1218.00

USER SUPPLIES

READER-PRINTER	480.00
MISCELLANEOUS	600.00

TOTAL ANNUAL OPERATING COST

00043233.00

TOTAL IN-HOUSE COST

000093987.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT BLISS

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	17629.55			
SAILS	00000.00	DPI	00000000	00000.00
STANFINS	12727.45	USER	0007588	00189.70
RECOMMENDED	16211.17	TOTAL ADDITIONAL REPRODUCTION COST		000189.70
TOTAL ADP PAPER COST	046568.17	TOTAL PAPER COST		0046757.87

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
SITE PREPARATION		1000.00
TOTAL INVESTMENT COST		41000.00
ANNUAL OPERATING COST		

VOLUME (TOTAL FRAMES/YEAR)	01191252
MASTER MICROFICHE	005810
DUPLICATE MICROFICHE	00092960
ADP PAPER	
USER SUPPLIES	
READER-PRINTER	
MISCELLANEOUS	

TOTAL ANNUAL OPERATING COST	00022799.80
TOTAL SERVICE CONTRACT COST	000063799.80

IN-HOUSE

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
FILM PROCESSOR		8754.00
SITE PREPARATION		2000.00
TOTAL INVESTMENT COST		50754.00
ANNUAL OPERATING COST		

COM EQUIPMENT LEASE		
RECORDER		25044.00
DUPPLICATOR		5342.00
PRODUCTION SUPPLIES		
FILM		8100.00
CHEMICALS		1620.00
MISCELLANEOUS		1080.00

ADP PAPER		002082.00
MAINTENANCE		1218.00
USER SUPPLIES		
READER-PRINTER		480.00
MISCELLANEOUS		600.00
TOTAL ANNUAL OPERATING COST		00043946.00
TOTAL IN-HOUSE COST		000094700.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT BRAGG

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDERS	21500.50	DPI	00000000	00000.00
SAILS	20439.10	USER	0007048	00176.20
STANFINS	08579.85			
RECOMMENDED	09594.67	TOTAL ADDITIONAL REPRODUCTION COST		000176.20
TOTAL ADP PAPER COST	060114.12	TOTAL PAPER COST		0060290.32

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

IN-HOUSE

INVESTMENT COST	QUANTITY	COST	INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00	READERS	250	50000.00
READER-PRINTERS	5	5000.00	READER-PRINTERS	5	5000.00
SITE PREPARATION		1000.00	FILM PROCESSOR		8754.00
TOTAL INVESTMENT COST		56000.00	SITE PREPARATION		2000.00
ANNUAL OPERATING COST			TOTAL INVESTMENT COST		65754.00
VOLUME (TOTAL FRAMES/YEAR)	02098925		ANNUAL OPERATING COST		
MASTER MICROFICHE	010238	0017302.22	COM EQUIPMENT LEASE		25044.00
DUPLICATE MICROFICHE	00163808	0015561.76	RECORDER		5342.00
ADP PAPER		000899.00	DUPLICATOR		
USER SUPPLIES			PRODUCTION SUPPLIES		
READER-PRINTER		600.00	FILM		8100.00
MISCELLANEOUS		600.00	CHEMICALS		1620.00
TOTAL ANNUAL OPERATING COST		00034962.98	MISCELLANEOUS		1080.00
TOTAL SERVICE CONTRACT COST		000090962.98	ADP PAPER		000899.00
			MAINTENANCE		1218.00
			USER SUPPLIES		
			READER-PRINTER		600.00
			MISCELLANEOUS		600.00
			TOTAL ANNUAL OPERATING COST		00042883.00
			TOTAL IN-HOUSE COST		000108637.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT CAMPBELL

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	07485.00	DPI	00000000	00000.00
SAILS	00000.00	USER	0009432	00235.80
STANFINS	09314.00			
RECOMMENDED	09122.52	TOTAL ADDITIONAL REPRODUCTION COST		000235.80
TOTAL ADP PAPER COST	025921.52	TOTAL PAPER COST		0026157.32

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

IN-HOUSE

INVESTMENT COST	QUANTITY	COST	INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00	READERS	180	36000.00
READER-PRINTERS	4	4000.00	READER-PRINTERS	4	4000.00
SITE PREPARATION		1000.00	FILM PROCESSOR		8754.00
TOTAL INVESTMENT COST		41000.00	SITE PREPARATION		2000.00
ANNUAL OPERATING COST			TOTAL INVESTMENT COST		50754.00
VOLUME (TOTAL FRAMES/YEAR)	00652936		ANNUAL OPERATING COST		
MASTER MICROFICHE	003185	0005924.10	COM EQUIPMENT LEASE		
DUPPLICATE MICROFICHE	00050960	0005401.76	RECORDER		25044.00
ADP PAPER		001027.00	DUPPLICATOR		5342.00
USER SUPPLIES		480.00	PRODUCTION SUPPLIES		
READER-PRINTER		600.00	FILM		8100.00
MISCELLANEOUS			CHEMICALS		1620.00
TOTAL ANNUAL OPERATING COST		00013432.86	MISCELLANEOUS		1080.00
TOTAL SERVICE CONTRACT COST		000054432.86	ADP PAPER		001027.00
			MAINTENANCE		1218.00
			USER SUPPLIES		480.00
			READER-PRINTER		600.00
			MISCELLANEOUS		00042891.00
			TOTAL ANNUAL OPERATING COST		000093645.00
			TOTAL IN-HOUSE COST		

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT CARSON

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	04606.00			
SAILS	63574.00	DPI	04018706	31345.90
STANFINS	04268.45	USER	0052540	01313.50
RECOMMENDED	06808.67			
		TOTAL ADDITIONAL REPRODUCTION COST		032659.40
TOTAL ADP PAPER COST	079257.12	TOTAL PAPER COST		0111916.52

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

IN-HOUSE

INVESTMENT COST	QUANTITY	COST	INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00	READERS	250	50000.00
READER-PRINTERS	5	5000.00	READER-PRINTERS	5	5000.00
SITE PREPARATION		1000.00	FILM PROCESSOR		8754.00
			SITE PREPARATION		2000.00
TOTAL INVESTMENT COST		56000.00	TOTAL INVESTMENT COST		65754.00
ANNUAL OPERATING COST			ANNUAL OPERATING COST		
VOLUME (TOTAL FRAMES/YEAR)	02878287		COM EQUIPMENT LEASE		
MASTER MICROFICHE	014040	0022885.20	RECORDER		25044.00
DUPLICATE MICROFICHE	00224640	0021340.80	DUPLICATOR		5342.00
ADP PAPER		003148.00			
USER SUPPLIES			PRODUCTION SUPPLIES		
READER-PRINTER		600.00	FILM		8100.00
MISCELLANEOUS		600.00	CHEMICALS		1620.00
			MISCELLANEOUS		1080.00
TOTAL ANNUAL OPERATING COST		00048574.00			
TOTAL SERVICE CONTRACT COST		000104574.00	ADP PAPER		003148.00
			MAINTENANCE		1218.00
			USER SUPPLIES		
			READER-PRINTER		600.00
			MISCELLANEOUS		600.00
			TOTAL ANNUAL OPERATING COST		00045132.00
			TOTAL IN-HOUSE COST		000110886.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT DETRICK

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	00000.00			
SAILS	00000.00		0000000	00000.00
STANFINS	04286.50		0000000	00000.00
RECOMMENDED	00080.30			
		TOTAL ADDITIONAL REPRODUCTION COST		000000.00
TOTAL ADP PAPER COST	004366.80	TOTAL PAPER COST		0004366.80

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST
READERS	065	13000.00
READER-PRINTERS	3	3000.00
SITE PREPARATION		1000.00
TOTAL INVESTMENT COST		17000.00
ANNUAL OPERATING COST		
VOLUME (TOTAL FRAMES/YEAR)	00165764	
MASTER MICROFICHE	000808	0001866.48
DUPLICATE MICROFICHE	00012928	0001667.71
ADP PAPER		000000.00
USER SUPPLIES		
READER-PRINTER		360.00
MISCELLANEOUS		600.00
TOTAL ANNUAL OPERATING COST		00004494.19
TOTAL SERVICE CONTRACT COST		000021494.19

IN-HOUSE

INVESTMENT COST	QUANTITY	COST
READERS	065	13000.00
READER-PRINTERS	3	3000.00
FILM PROCESSOR		8754.00
SITE PREPARATION		2000.00
TOTAL INVESTMENT COST		26754.00
ANNUAL OPERATING COST		
COM EQUIPMENT LEASE		
RECORDER		25044.00
DUPLICATOR		5342.00
PRODUCTION SUPPLIES		
FILM		8100.00
CHEMICALS		1620.00
MISCELLANEOUS		1080.00
ADP PAPER		
MAINTENANCE		000000.00
USER SUPPLIES		1218.00
READER-PRINTER		360.00
MISCELLANEOUS		600.00
TOTAL ANNUAL OPERATING COST		00041744.00
TOTAL IN-HOUSE COST		000068498.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT DEVENS

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	07167.75	DPI	00918624	07165.26
SAILS	11568.90	USER	0218806	05470.15
STANFINS	08184.00			
RECOMMENDED	06508.05	TOTAL ADDITIONAL REPRODUCTION COST		012635.41
TOTAL ADP PAPER COST	033428.70	TOTAL PAPER COST		0046064.11

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

IN-HOUSE

INVESTMENT COST	QUANTITY	COST	INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00	READERS	250	50000.00
READER-PRINTERS	5	5000.00	READER-PRINTERS	5	5000.00
SITE PREPARATION		1000.00	FILM PROCESSOR		8754.00
TOTAL INVESTMENT COST		56000.00	SITE PREPARATION		2000.00
ANNUAL OPERATING COST			TOTAL INVESTMENT COST		65754.00
VOLUME (TOTAL FRAMES/YEAR)	00712239		ANNUAL OPERATING COST		
MASTER MICROFICHE	003474	0006461.64	COM EQUIPMENT LEASE		25044.00
DUPLICATE MICROFICHE	00055584	0005891.90	RECORDER		5342.00
ADP PAPER		000788.00	DUPLICATOR		
USER SUPPLIES			PRODUCTION SUPPLIES		
READER-PRINTER		600.00	FILM		8100.00
MISCELLANEOUS		600.00	CHEMICALS		1620.00
TOTAL ANNUAL OPERATING COST		00014341.54	MISCELLANEOUS		1060.00
TOTAL SERVICE CONTRACT COST		000070341.54	ADP PAPER		000788.00
			MAINTENANCE		1218.00
			USER SUPPLIES		600.00
			READER-PRINTER		600.00
			MISCELLANEOUS		00042772.00
			TOTAL ANNUAL OPERATING COST		000108526.00
			TOTAL IN-HOUSE COST		

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT DIX

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	03454.40	DPI	00775490	06048.82
SAILS	37481.70	USER	0021944	00548.60
STANFINS	07104.00			
RECOMMENDED	12568.80	TOTAL ADDITIONAL REPRODUCTION COST		006597.42
TOTAL ADP PAPER COST	060608.90	TOTAL PAPER COST		0067206.32

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST	INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00	READERS	250	50000.00
READER-PRINTERS	5	5000.00	READER-PRINTERS	5	5000.00
SITE PREPARATION		1000.00	FILM PROCESSOR		8754.00
TOTAL INVESTMENT COST		56000.00	SITE PREPARATION		2000.00
ANNUAL OPERATING COST			TOTAL INVESTMENT COST		65754.00

ANNUAL OPERATING COST

VOLUME (TOTAL FRAMES/YEAR)	01194253
MASTER MICROFICHE	005825
DUPLICATE MICROFICHE	00093200
ADP PAPER	002113.00
USER SUPPLIES	
READER-PRINTER	600.00
MISCELLANEOUS	500.00

TOTAL ANNUAL OPERATING COST

00023001.50

TOTAL SERVICE CONTRACT COST

000079001.50

IN-HOUSE

INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00
READER-PRINTERS	5	5000.00
FILM PROCESSOR		8754.00
SITE PREPARATION		2000.00
TOTAL INVESTMENT COST		65754.00

ANNUAL OPERATING COST

COM EQUIPMENT LEASE	
RECORDER	25044.00
DUPLICATOR	5342.00

PRODUCTION SUPPLIES

FILM	8100.00
CHEMICALS	1620.00
MISCELLANEOUS	1080.00

ADP PAPER

002113.00

MAINTENANCE

1218.00

USER SUPPLIES

600.00

READER-PRINTER

600.00

MISCELLANEOUS

600.00

TOTAL ANNUAL OPERATING COST

00044097.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT EUSTIS

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	13277.60	DPI	03899080	30412.82
SAILS	00000.00	USER	0429428	10735.70
STANFINS	06988.55			
RECOMMENDED	15258.42	TOTAL ADDITIONAL REPRODUCTION COST		041148.52
TOTAL ADP PAPER COST	035524.57	TOTAL PAPER COST		0076673.09

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
SITE PREPARATION		1000.00
TOTAL INVESTMENT COST		41000.00
ANNUAL OPERATING COST		

VOLUME (TOTAL FRAMES/YEAR)	00791318
MASTER MICROFICHE	003860
DUPPLICATE MICROFICHE	00061760
ADP PAPER	
USER SUPPLIES	
READER-PRINTER	
MISCELLANEOUS	
TOTAL ANNUAL OPERATING COST	00016475.80
TOTAL SERVICE CONTRACT COST	000057475.80

IN-HOUSE

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
FILM PROCESSOR		8754.00
SITE PREPARATION		2000.00
TOTAL INVESTMENT COST		50754.00
ANNUAL OPERATING COST		

COM EQUIPMENT LEASE		
RECORDER		25044.00
DUPPLICATOR		5342.00

PRODUCTION SUPPLIES		
FILM		8100.00
CHEMICALS		1620.00
MISCELLANEOUS		1080.00

ADP PAPER		002349.00
MAINTENANCE		1218.00
USER SUPPLIES		
READER-PRINTER		480.00
MISCELLANEOUS		600.00
TOTAL ANNUAL OPERATING COST		00044213.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FITZSIMMONS ARMY MEDICAL CENTER

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	00000.00			
SAILS	00000.00			
STANFINS	06438.95			
RECOMMENDED	00353.07			
		DPI	00000000	00000.00
		USER	00000000	00000.00
		TOTAL ADDITIONAL REPRODUCTION COST		000000.00
TOTAL ADP PAPER COST	006792.02	TOTAL PAPER COST		0006792.02

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST	IN-HOUSE	INVESTMENT COST	QUANTITY	COST
READERS	065	13000.00	READERS		065	13000.00
READER-PRINTERS	3	3000.00	READER-PRINTERS		3	3000.00
SITE PREPARATION		1000.00	FILM PROCESSOR			8754.00
TOTAL INVESTMENT COST		17000.00	SITE PREPARATION			2000.00
			TOTAL INVESTMENT COST			26754.00
ANNUAL OPERATING COST			ANNUAL OPERATING COST			

VOLUME (TOTAL FRAMES/YEAR)	00202622	COM EQUIPMENT LEASE			
MASTER MICROFICHE	000988	RECORDER			25044.00
DUPLICATE MICROFICHE	00015808	DUPLICATOR			5342.00
ADP PAPER		PRODUCTION SUPPLIES			
USER SUPPLIES		FILM			8100.00
READER-PRINTER		CHEMICALS			1620.00
MISCELLANEOUS		MISCELLANEOUS			1080.00

TOTAL ANNUAL OPERATING COST	00005281.51	ADP PAPER			000000.00
TOTAL SERVICE CONTRACT COST	000022281.51	MAINTENANCE			1218.00
		USER SUPPLIES			360.00
		READER-PRINTER			600.00
		MISCELLANEOUS			00041744.00
		TOTAL ANNUAL OPERATING COST			
		TOTAL IN-HOUSE COST			000068498.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT GORDON

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	02178.00	DPI	01356676	10582.07
SAILS	00000.00	USER	0004452	00111.30
STANFINS	05612.65			
RECOMMENDED	01506.80	TOTAL ADDITIONAL REPRODUCTION COST		010693.37
TOTAL ADP PAPER COST	009297.45	TOTAL PAPER COST		0019990.82

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
SITE PREPARATION		1000.00
TOTAL INVESTMENT COST		41000.00
ANNUAL OPERATING COST		
VOLUME (TOTAL FRAMES/YEAR)	00581856	
MASTER MICROFICHE	002838	0005278.68
DUPLICATE MICROFICHE	00045408	0004913.24
ADP PAPER		001008.00
USER SUPPLIES		
READER-PRINTER		480.00
MISCELLANEOUS		600.00
TOTAL ANNUAL OPERATING COST		00012179.92
TOTAL SERVICE CONTRACT COST		000053179.92

IN-HOUSE

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
FILM PROCESSOR		8754.00
SITE PREPARATION		2000.00
TOTAL INVESTMENT COST		50754.00
ANNUAL OPERATING COST		
COM EQUIPMENT LEASE		
RECORDER		25044.00
DUPLICATOR		5342.00
PRODUCTION SUPPLIES		
FILM		8100.00
CHEMICALS		1620.00
MISCELLANEOUS		1080.00
ADP PAPER		001008.00
MAINTENANCE		1218.00
USER SUPPLIES		
READER-PRINTER		480.00
MISCELLANEOUS		600.00
TOTAL ANNUAL OPERATING COST		00042872.00
TOTAL IN-HOUSE COST		000093626.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

ARMY SUPPORT GROUP HOMESTEAD AFB

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDERS	03569.60	DPI	00000000	00000.00
SAILS	01577.15	USER	0001300	00032.50
STANFINS	00559.90			
RECOMMENDED	01198.00	TOTAL ADDITIONAL REPRODUCTION COST		000032.50
TOTAL ADP PAPER COST	006904.65	TOTAL PAPER COST		0006937.15

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST	IN-HOUSE	INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00	READERS		250	50000.00
READER-PRINTERS	5	5000.00	READER-PRINTERS		5	5000.00
SITE PREPARATION		1000.00	FILM PROCESSOR			8754.00
TOTAL INVESTMENT COST		56000.00	SITE PREPARATION			2000.00
ANNUAL OPERATING COST			TOTAL INVESTMENT COST			65754.00

ANNUAL OPERATING COST

VOLUME (TOTAL FRAMES/YEAR)	00182699
MASTER MICROFICHE	000891
DUPLICATE MICROFICHE	00014256
ADP PAPER	000136.00
USER SUPPLIES	
READER-PRINTER	600.00
MISCELLANEOUS	600.00

TOTAL ANNUAL OPERATING COST 00005233.23

TOTAL SERVICE CONTRACT COST 000061233.23

COM EQUIPMENT LEASE	
RECORDER	25044.00
DUPLICATOR	5342.00

PRODUCTION SUPPLIES	
FILM	8100.00
CHEMICALS	1620.00
MISCELLANEOUS	1080.00

ADP PAPER	000136.00
MAINTENANCE	1218.00
USER SUPPLIES	
READER-PRINTER	600.00
MISCELLANEOUS	600.00
TOTAL ANNUAL OPERATING COST	00042120.00
TOTAL IN-HOUSE COST	000107874.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT HOOD

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	05610.60	DPI	00000000	00000.00
SAILS	65357.00	USER	0030247	00756.17
STANFINS	16452.00			
RECOMMENDED	10220.40	TOTAL ADDITIONAL REPRODUCTION COST		000756.17
TOTAL ADP PAPER COST	097640.00	TOTAL PAPER COST		0098396.17

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST	IN-HOUSE	INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00	READERS		250	50000.00
READER-PRINTERS	5	5000.00	READER-PRINTERS		5	5000.00
SITE PREPARATION		1000.00	FILM PROCESSOR			8754.00
TOTAL INVESTMENT COST		56000.00	SITE PREPARATION			2000.00
			TOTAL INVESTMENT COST			65754.00

ANNUAL OPERATING COST

VOLUME (TOTAL FRAMES/YEAR)	01868715
MASTER MICROFICHE	009115
DUPLICATE MICROFICHE	00145840
ADP PAPER	000401.00
USER SUPPLIES	600.00
READER-PRINTER	000.00
MISCELLANEOUS	000.00
TOTAL ANNUAL OPERATING COST	00030860.15

TOTAL ANNUAL OPERATING COST

TOTAL SERVICE CONTRACT COST

COM EQUIPMENT LEASE	25044.00
RECORDER	5342.00
DUPLICATOR	
PRODUCTION SUPPLIES	8100.00
FILM	1620.00
CHEMICALS	1080.00
MISCELLANEOUS	
ADP PAPER	000401.00
MAINTENANCE	1218.00
USER SUPPLIES	
READER-PRINTER	600.00
MISCELLANEOUS	600.00
TOTAL ANNUAL OPERATING COST	00042385.00
TOTAL IN-HOUSE COST	000108139.00

CCM COST/BENEFIT ANALYSIS (ANNUAL)

FORT HUACHUCA

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	07055.00	DPI	00000000	00000.00
SAILS	00000.00	USER	0001694	00042.35
STANFINS	08532.00			
RECOMMENDED	03354.17	TOTAL ADDITIONAL REPRODUCTION COST		00042.35
TOTAL ADP PAPER COST	018941.17	TOTAL PAPER COST		0018983.52

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
SITE PREPARATION		1000.00
TOTAL INVESTMENT COST		41000.00
ANNUAL OPERATING COST		
VOLUME (TOTAL FRAMES/YEAR)	00724315	
MASTER MICROFICHE	003533	0006571.38
DUPLICATE MICROFICHE	00056528	0005991.96
ADP PAPER		000449.00
USER SUPPLIES		480.00
READER-PRINTER		000.00
MISCELLANEOUS		
TOTAL ANNUAL OPERATING COST		00014092.34
TOTAL SERVICE CONTRACT COST		000055092.34

IN-HOUSE

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
FILM PROCESSOR		8754.00
SITE PREPARATION		2000.00
TOTAL INVESTMENT COST		50754.00
ANNUAL OPERATING COST		
COM EQUIPMENT LEASE		
RECORDER		25044.00
DUPLICATOR		5342.00
PRODUCTION SUPPLIES		
FILM		8100.00
CHEMICALS		1620.00
MISCELLANEOUS		1080.00
ADP PAPER		000449.00
MAINTENANCE		1218.00
USER SUPPLIES		480.00
READER-PRINTER		600.00
MISCELLANEOUS		
TOTAL ANNUAL OPERATING COST		00042313.00
TOTAL IN-HOUSE COST		000093067.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT INDIANTOWN GAP

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	05227.40	DPI	00000000	00000.00
SAILS	21420.00	USER	0001326	00033.15
STANFINS	35091.95			
RECOMMENDED	05627.80	TOTAL ADDITIONAL REPRODUCTION COST		000033.15
TOTAL ADP PAPER COST	067367.15	TOTAL PAPER COST		0067400.30

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

IN-HOUSE

INVESTMENT COST	QUANTITY	COST	INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00	READERS	250	50000.00
READER-PRINTERS	5	5000.00	READER-PRINTERS	5	5000.00
SITE PREPARATION		1000.00	FILM PROCESSOR		8754.00
TOTAL INVESTMENT COST		56000.00	SITE PREPARATION		2000.00
ANNUAL OPERATING COST			TOTAL INVESTMENT COST		65754.00
VOLUME (TOTAL FRAMES/YEAR)	01761727		ANNUAL OPERATING COST		
MASTER MICROFICHE	008593	0014522.17	COM EQUIPMENT LEASE		25044.00
DUPPLICATE MICROFICHE	00137488	0013061.36	RECORDER		5342.00
ADP PAPER		000374.00	DUPPLICATOR		
USER SUPPLIES		600.00	PRODUCTION SUPPLIES		
READER-PRINTER		600.00	FILM		8100.00
MISCELLANEOUS		600.00	CHEMICALS		1620.00
TOTAL ANNUAL OPERATING COST		00029157.53	MISCELLANEOUS		1080.00
TOTAL SERVICE CONTRACT COST		000085157.53	ADP PAPER		000374.00
			MAINTENANCE		1218.00
			USER SUPPLIES		
			READER-PRINTER		600.00
			MISCELLANEOUS		600.00
			TOTAL ANNUAL OPERATING COST		00042358.00
			TOTAL IN-HOUSE COST		000108112.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT JACKSON

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	14390.60	DPI	00000000	00000.00
SAILS	18643.80	USER	0094240	02356.00
STANFINS	06017.10			
RECOMMENDED	14173.62	TOTAL ADDITIONAL REPRODUCTION COST		002356.00
TOTAL ADP PAPER COST	053225.12	TOTAL PAPER COST		0055581.12

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

IN-HOUSE

INVESTMENT COST	QUANTITY	COST	INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00	READERS	250	50000.00
READER-PRINTERS	5	5000.00	READER-PRINTERS	5	5000.00
SITE PREPARATION		1000.00	FILM PROCESSOR		8754.00
TOTAL INVESTMENT COST		56000.00	SITE PREPARATION		2000.00
ANNUAL OPERATING COST			TOTAL INVESTMENT COST		65754.00
VOLUME (TOTAL FRAMES/YEAR)	01444339		ANNUAL OPERATING COST		
MASTER MICROFICHE	007045	0011906.05	COM EQUIPMENT LEASE		25044.00
DUPPLICATE MICROFICHE	00112720	0010708.40	RECORDER		5342.00
ADP PAPER		001676.00	DUPPLICATOR		
USER SUPPLIES			PRODUCTION SUPPLIES		
READER-PRINTER		600.00	FILM		8100.00
MISCELLANEOUS		600.00	CHEMICALS		1620.00
TOTAL ANNUAL OPERATING COST		00025490.45	MISCELLANEOUS		1080.00
TOTAL SERVICE CONTRACT COST		000081490.45	ADP PAPER		001676.00
			MAINTENANCE		1218.00
			USER SUPPLIES		600.00
			READER-PRINTER		600.00
			MISCELLANEOUS		00043660.00
			TOTAL ANNUAL OPERATING COST		000109414.00
			TOTAL IN-HOUSE COST		

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT KNOX

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	10335.25			
SAILS	38372.50	DPI	00000000	00000.00
STANFINS	11457.40	USER	0192528	04813.20
RECOMMENDED	12633.15			
		TOTAL ADDITIONAL REPRODUCTION COST		004813.20
TOTAL ADP PAPER COST	072798.30	TOTAL PAPER COST		0077611.50

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

IN-HOUSE

INVESTMENT COST	QUANTITY	COST	INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00	READERS	250	50000.00
READER-PRINTERS	5	5000.00	READER-PRINTERS	5	5000.00
SITE PREPARATION		1000.00	FILM PROCESSOR		8754.00
TOTAL INVESTMENT COST		56000.00	SITE PREPARATION		2000.00
ANNUAL OPERATING COST			TOTAL INVESTMENT COST		65754.00
VOLUME (TOTAL FRAMES/YEAR)	03012238		ANNUAL OPERATING COST		
MASTER MICROFICHE	014693	0023949.59	COM EQUIPMENT LEASE		
DUPPLICATE MICROFICHE	00235088	0022333.36	RECORDER		25044.00
ADP PAPER		001833.00	DUPPLICATOR		5342.00
USER SUPPLIES			PRODUCTION SUPPLIES		
READER-PRINTER		600.00	FILM		8100.00
MISCELLANEOUS		600.00	CHEMICALS		1620.00
TOTAL ANNUAL OPERATING COST		00049315.95	MISCELLANEOUS		1080.00
TOTAL SERVICE CONTRACT COST		000105315.95	ADP PAPER		001833.00
			MAINTENANCE		1218.00
			USER SUPPLIES		
			READER-PRINTER		600.00
			MISCELLANEOUS		600.00
			TOTAL ANNUAL OPERATING COST		00043817.00
			TOTAL IN-HOUSE COST		000109571.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT LEAVENWORTH

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	08883.05			
SAILS	25337.10			
STANFINS	05197.75			
RECOMMENDED	06242.67			
		DPI	00017640	00137.59
		USER	0003460	00086.50
		TOTAL ADDITIONAL REPRODUCTION COST		000224.09
TOTAL ADP PAPER COST	045660.57	TOTAL PAPER COST		0045884.66

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00
READER-PRINTERS	5	5000.00
SITE PREPARATION		1000.00
TOTAL INVESTMENT COST		56000.00
ANNUAL OPERATING COST		

VOLUME (TOTAL FRAMES/YEAR)	02173705
MASTER MICROFICHE	010603
DUPLICATE MICROFICHE	00169648
ADP PAPER	
USER SUPPLIES	
READER-PRINTER	600.00
MISCELLANEOUS	600.00
TOTAL ANNUAL OPERATING COST	00035571.63
TOTAL SERVICE CONTRACT COST	000091571.63

IN-HOUSE

INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00
READER-PRINTERS	5	5000.00
FILM PROCESSOR		8754.00
SITE PREPARATION		2000.00
TOTAL INVESTMENT COST		65754.00
ANNUAL OPERATING COST		

COM EQUIPMENT LEASE		
RECORDER		25044.00
DUPLICATOR		5342.00

PRODUCTION SUPPLIES		
FILM		8100.00
CHEMICALS		1520.00
MISCELLANEOUS		1080.00

ADP PAPER		000336.00
MAINTENANCE		1218.00
USER SUPPLIES		
READER-PRINTER		600.00
MISCELLANEOUS		600.00
TOTAL ANNUAL OPERATING COST		00042320.00
TOTAL IN-HOUSE COST		000108074.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT LEE

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
STOPPERS	01240.00			
SAILS	25245.00	DPI	00035646	00278.03
STANFINS	10511.50	USER	0959598	23989.95
RECOMMENDED	08251.25			
		TOTAL ADDITIONAL REPRODUCTION COST		024267.98
TOTAL ADP PAPER COST	045247.75	TOTAL PAPER COST		0069515.73

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00
READER-PRINTERS	5	5000.00
SITE PREPARATION		1000.00
TOTAL INVESTMENT COST		56000.00
ANNUAL OPERATING COST		

VOLUME (TOTAL FRAMES/YEAR)	02008222
MASTER MICROFICHE	009796
DUPLICATE MICROFICHE	00156736
ADP PAPER	001112.00
USER SUPPLIES	
READER-PRINTER	600.00
MISCELLANEOUS	600.00

TOTAL ANNUAL OPERATING COST	00033757.16
TOTAL SERVICE CONTRACT COST	000089757.16

IN-HOUSE

INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00
READER-PRINTERS	5	5000.00
FILM PROCESSOR		8754.00
SITE PREPARATION		2000.00
TOTAL INVESTMENT COST		65754.00
ANNUAL OPERATING COST		

COM EQUIPMENT LEASE	
RECORDER	25044.00
DUPLICATOR	5342.00

PRODUCTION SUPPLIES	
FILM	8100.00
CHEMICALS	1620.00
MISCELLANEOUS	1080.00

ADP PAPER	001112.00
MAINTENANCE	1218.00
USER SUPPLIES	
READER-PRINTER	600.00
MISCELLANEOUS	600.00
TOTAL ANNUAL OPERATING COST	00043096.00
TOTAL IN-HOUSE COST	00108850.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT LEONARD WOOD

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	07342.95	DPI	00904904	07058.25
SAILS	25517.05	USER	0003560	00089.50
STANFINS	09360.60			
RECOMMENDED	06409.92	TOTAL ADDITIONAL REPRODUCTION COST		007147.75
TOTAL ADP PAPER COST	048630.52	TOTAL PAPER COST		0055778.27

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST	IN-HOUSE	INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00		READERS	250	50000.00
READER-PRINTERS	5	5000.00		READER-PRINTERS	5	5000.00
SITE PREPARATION		1000.00		FILM PROCESSOR		8754.00
TOTAL INVESTMENT COST		56000.00		SITE PREPARATION		2000.00
				TOTAL INVESTMENT COST		65754.00

ANNUAL OPERATING COST

VOLUME (TOTAL FRAMES/YEAR)	01211225		
MASTER MICROFICHE	005908	0010988.88	
DUPLICATE MICROFICHE	00094528	0008980.16	
ADP PAPER		000727.00	
USER SUPPLIES			
READER-PRINTER		600.00	
MISCELLANEOUS		600.00	
TOTAL ANNUAL OPERATING COST		00021896.04	

TOTAL ANNUAL OPERATING COST

TOTAL SERVICE CONTRACT COST

ANNUAL OPERATING COST

COM EQUIPMENT LEASE		
RECORDER		25044.00
DUPLICATOR		5342.00
PRODUCTION SUPPLIES		
FILM		8100.00
CHEMICALS		1620.00
MISCELLANEOUS		1080.00
ADP PAPER		000727.00
MAINTENANCE		1218.00
USER SUPPLIES		600.00
READER-PRINTER		600.00
MISCELLANEOUS		00042711.00
TOTAL ANNUAL OPERATING COST		000108465.00

TOTAL IN-HOUSE COST

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT LEWIS

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	10754.00	DPI	00000000	00000.00
SAILS	00000.00	USER	0073842	01846.05
STANFINS	10503.50			
RECOMMENDED	07747.65	TOTAL ADDITIONAL REPRODUCTION COST		001846.05
TOTAL ADP PAPER COST	029005.15	TOTAL PAPER COST		0030851.20

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

IN-HOUSE

INVESTMENT COST	QUANTITY	COST	INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00	READERS	180	36000.00
READER-PRINTERS	4	4000.00	READER-PRINTERS	4	4000.00
SITE PREPARATION		1000.00	FILM PROCESSOR		8754.00
TOTAL INVESTMENT COST		41000.00	SITE PREPARATION		2000.00
ANNUAL OPERATING COST			TOTAL INVESTMENT COST		50754.00
VOLUME (TOTAL FRAMES/YEAR)	00832014		ANNUAL OPERATING COST		
MASTER MICROFICHE	004058	0007547.88	COM EQUIPMENT LEASE		
DUPPLICATE MICROFICHE	00064928	0006168.16	RECORDER		25044.00
ADP PAPER		001150.00	DUPPLICATOR		5342.00
USER SUPPLIES			PRODUCTION SUPPLIES		
READER-PRINTER		480.00	FILM		8100.00
MISCELLANEOUS		500.00	CHEMICALS		1620.00
TOTAL ANNUAL OPERATING COST		00015946.04	MISCELLANEOUS		1080.00
TOTAL SERVICE CONTRACT COST		000056916.04	ADP PAPER		001150.00
			MAINTENANCE		1218.00
			USER SUPPLIES		
			READER-PRINTER		480.00
			MISCELLANEOUS		600.00
			TOTAL ANNUAL OPERATING COST		00043014.00
			TOTAL IN-HOUSE COST		000093768.00

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COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT MCCLELLAN

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	17886.00	DPI	00000000	00000.00
SAILS	00000.00	USER	0002600	00065.00
STANFINS	05884.70			
RECOMMENDED	13042.80	TOTAL ADDITIONAL REPRODUCTION COST		000065.00
TOTAL ADP PAPER COST	036813.50	TOTAL PAPER COST		0036878.50

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
SITE PREPARATION		1000.00
TOTAL INVESTMENT COST		41000.00
ANNUAL OPERATING COST		

VOLUME (TOTAL FRAMES/YEAR)	00754190
MASTER MICROFICHE	003678
DUPLICATE MICROFICHE	00058848
ADP PAPER	001601.00
USER SUPPLIES	480.00
READER-PRINTER	000.00
MISCELLANEOUS	000.00
TOTAL ANNUAL OPERATING COST	00015759.96
TOTAL SERVICE CONTRACT COST	000056759.96

IN-HOUSE

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
FILM PROCESSOR		8754.00
SITE PREPARATION		2000.00
TOTAL INVESTMENT COST		50754.00
ANNUAL OPERATING COST		

COM EQUIPMENT LEASE	25044.00
RECORDER	5342.00
DUPLICATOR	

PRODUCTION SUPPLIES	8100.00
FILM	1620.00
CHEMICALS	1080.00
MISCELLANEOUS	

ADP PAPER	001601.00
MAINTENANCE	1218.00
USER SUPPLIES	
READER-PRINTER	480.00
MISCELLANEOUS	600.00
TOTAL ANNUAL OPERATING COST	00043465.00
TOTAL IN-HOUSE COST	000094219.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT MCPHERSON

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	02176.00	DPI	02054477	16024.92
SAILS	10238.00	USER	0007748	00193.70
STANFINS	00000.00			
RECOMMENDED	01188.95	TOTAL ADDITIONAL REPRODUCTION COST		016218.62
TOTAL ADP PAPER COST	013602.95	TOTAL PAPER COST		0029821.57

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST	IN-HOUSE	INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00	READERS		250	50000.00
READER-PRINTERS	5	5000.00	READER-PRINTERS		5	5000.00
SITE PREPARATION		1000.00	FILM PROCESSOR			8754.00
TOTAL INVESTMENT COST		56000.00	SITE PREPARATION			2000.00
ANNUAL OPERATING COST			TOTAL INVESTMENT COST			65754.00

ANNUAL OPERATING COST

VOLUME (TOTAL FRAMES/YEAR)	00778114
MASTER MICROFICHE	003795
DUPLICATE MICROFICHE	00060720
ADP PAPER	000546.00
USER SUPPLIES	600.00
READER-PRINTER	600.00
MISCELLANEOUS	600.00

COM EQUIPMENT LEASE	25044.00
REORDER	5342.00
DUPLICATOR	

PRODUCTION SUPPLIES	8100.00
FILM	1620.00
CHEMICALS	1080.00
MISCELLANEOUS	

TOTAL ANNUAL OPERATING COST 00014573.10

TOTAL SERVICE CONTRACT COST 000070573.10

ADP PAPER	000546.00
MAINTENANCE	1218.00
USER SUPPLIES	600.00
READER-PRINTER	600.00
MISCELLANEOUS	00042530.00
TOTAL ANNUAL OPERATING COST	000108284.00

TOTAL IN-HOUSE COST

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT MEADE

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	37106.00			
SAILS	00000.00	DPI	00216000	01684.80
STANFINS	08481.00	USER	0061256	01531.40
RECOMMENDED	12878.30			
		TOTAL ADDITIONAL REPRODUCTION COST		003216.20
TOTAL ADP PAPER COST	058465.30	TOTAL PAPER COST		0061681.50

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
SITE PREPARATION		1000.00
TOTAL INVESTMENT COST		41000.00
ANNUAL OPERATING COST		
VOLUME (TOTAL FRAMES/YEAR)	01441014	
MASTER MICROFICHE	007029	0011879.01
DUPLICATE MICROFICHE	00112464	0010684.08
ADP PAPER		001697.00
USER SUPPLIES		
READER-PRINTER		480.00
MISCELLANEOUS		600.00
TOTAL ANNUAL OPERATING COST		00025340.09
TOTAL SERVICE CONTRACT COST		000066340.09

IN-HOUSE

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
FILM PROCESSOR		8754.00
SITE PREPARATION		2000.00
TOTAL INVESTMENT COST		50754.00
ANNUAL OPERATING COST		
COM EQUIPMENT LEASE		
RECORDER		25044.00
DUPLICATOR		5342.00
PRODUCTION SUPPLIES		
FILM		8100.00
CHEMICALS		1620.00
MISCELLANEOUS		1080.00
ADP PAPER		
MAINTENANCE		001697.00
USER SUPPLIES		1218.00
READER-PRINTER		480.00
MISCELLANEOUS		600.00
TOTAL ANNUAL OPERATING COST		00043561.00
TOTAL IN-HOUSE COST		000094315.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

MILITARY DISTRICT OF WASHINGTON

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIOPERS	09929.95			
SAILS	10354.90	DPI	03240702	25277.47
STANFINS	07021.50	USER	0147984	03699.60
RECOMMENDED	16147.90			
		TOTAL ADDITIONAL REPRODUCTION COST		028977.07
TOTAL ADP PAPER COST	043454.25	TOTAL PAPER COST		0072431.32

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

IN-HOUSE

INVESTMENT COST	QUANTITY	COST	INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00	READERS	250	50000.00
READER-PRINTERS	5	5000.00	READER-PRINTERS	5	5000.00
SITE PREPARATION		1000.00	FILM PROCESSOR		8754.00
TOTAL INVESTMENT COST		56000.00	SITE PREPARATION		2000.00
ANNUAL OPERATING COST			TOTAL INVESTMENT COST		65754.00
VOLUME (TOTAL FRAMES/YEAR)	01236177		ANNUAL OPERATING COST		
MASTER MICROFICHE	006030	0010190.70	COM EQUIPMENT LEASE		25044.00
DUPLICATE MICROFICHE	00096480	0009165.60	RECORDER		5342.00
ADP PAPER		001912.00	DUPLICATOR		
USER SUPPLIES			PRODUCTION SUPPLIES		
READER-PRINTER		600.00	FILM		8100.00
MISCELLANEOUS		600.00	CHEMICALS		1620.00
TOTAL ANNUAL OPERATING COST		00022468.30	MISCELLANEOUS		1080.00
TOTAL SERVICE CONTRACT COST		000078468.30	ADP PAPER		001912.00
			MAINTENANCE		1218.00
			USER SUPPLIES		600.00
			READER-PRINTER		600.00
			MISCELLANEOUS		00043896.00
			TOTAL ANNUAL OPERATING COST		000109650.00
			TOTAL IN-HOUSE COST		

COM COST/BENEFIT ANALYSIS ('ANNUAL)

FORT ORD

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	15638.50	DPI	00657280	05126.78
SAILS	00000.00	USER	0001184	00029.60
STANFINS	37949.80			
RECOMMENDED	18983.42	TOTAL ADDITIONAL REPRODUCTION COST		005156.38
TOTAL ADP PAPER COST	072571.72	TOTAL PAPER COST		0077728.10

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST	IN-HOUSE	INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00	READERS	180	36000.00	
READER-PRINTERS	4	4000.00	READER-PRINTERS	4	4000.00	
SITE PREPARATION		1000.00	FILM PROCESSOR		8754.00	
TOTAL INVESTMENT COST		41000.00	SITE PREPARATION		2000.00	
ANNUAL OPERATING COST			TOTAL INVESTMENT COST		50754.00	

ANNUAL OPERATING COST

VOLUME (TOTAL FRAMES/YEAR)	02207414	ANNUAL OPERATING COST	
MASTER MICROFICHE	010767	COM EQUIPMENT LEASE	
DUPLICATE MICROFICHE	00172272	RECORDER	25044.00
ADP PAPER		DUPLICATOR	5342.00
USER SUPPLIES		PRODUCTION SUPPLIES	
READER-PRINTER		FILM	8100.00
MISCELLANEOUS		CHEMICALS	1620.00
		MISCELLANEOUS	1080.00

TOTAL ANNUAL OPERATING COST 00037674.07

TOTAL SERVICE CONTRACT COST 000078674.07

ADP PAPER	002032.00
MAINTENANCE	1218.00
USER SUPPLIES	
READER-PRINTER	480.00
MISCELLANEOUS	600.00
TOTAL ANNUAL OPERATING COST	00043896.00
TOTAL IN-HOUSE COST	000094650.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT POLK

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	09345.05			
SAILS	00000.00	DPI	00000000	00000.00
STANFINS	19003.35	USER	0000720	00018.00
RECOMMENDED	05641.00			
		TOTAL ADDITIONAL REPRODUCTION COST		000018.00
TOTAL ADP PAPER COST	033989.40	TOTAL PAPER COST		0034007.40

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

IN-HOUSE

INVESTMENT COST	QUANTITY	COST	INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00	READERS	180	36000.00
READER-PRINTERS	4	4000.00	READER-PRINTERS	4	4000.00
SITE PREPARATION		1000.00	FILM PROCESSOR		8754.00
TOTAL INVESTMENT COST		41000.00	SITE PREPARATION		2000.00
ANNUAL OPERATING COST			TOTAL INVESTMENT COST		50754.00
VOLUME (TOTAL FRAMES/YEAR)	00708290		ANNUAL OPERATING COST		
MASTER MICROFICHE	003455	0006426.30	COM EQUIPMENT LEASE		
Duplicate MICROFICHE	00055280	0005859.68	RECORDER		25044.00
ADP PAPER		000722.00	DUPPLICATOR		5342.00
USER SUPPLIES			PRODUCTION SUPPLIES		
READER-PRINTER		480.00	FILM		8100.00
MISCELLANEOUS		600.00	CHEMICALS		1620.00
TOTAL ANNUAL OPERATING COST		00014087.98	MISCELLANEOUS		1080.00
TOTAL SERVICE CONTRACT COST		000055087.98	ADP PAPER		000722.00
			MAINTENANCE		1218.00
			USER SUPPLIES		480.00
			READER-PRINTER		600.00
			MISCELLANEOUS		00042586.00
			TOTAL ANNUAL OPERATING COST		000093340.00
			TOTAL IN-HOUSE COST		

COM COST/BENEFIT ANALYSIS (ANNUAL)

PRESIDIO - SAN FRANCISCO

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	28971.00	DPI	00000000	00000.00
SAILS	39998.00	USER	0076991	01924.77
STANFINS	18704.00			
RECOMMENDED	29634.25	TOTAL ADDITIONAL REPRODUCTION COST		001924.77
TOTAL ADP PAPER COST	117307.25	TOTAL PAPER COST		0119232.02

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST	IN-HOUSE	INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00	READERS	250	50000.00	
READER-PRINTERS	5	5000.00	READER-PRINTERS	5	5000.00	
SITE PREPARATION		1000.00	FILM PROCESSOR		8754.00	
TOTAL INVESTMENT COST		56000.00	SITE PREPARATION		2000.00	
			TOTAL INVESTMENT COST		65754.00	

ANNUAL OPERATING COST

VOLUME (TOTAL FRAMES/YEAR)	04240986	COM EQUIPMENT LEASE	
MASTER MICROFICHE	020687	RECORDER	25044.00
DUPPLICATE MICROFICHE	00330992	DUPPLICATOR	5342.00
ADP PAPER			
USER SUPPLIES		PRODUCTION SUPPLIES	
READER-PRINTER		FILM	8100.00
MISCELLANEOUS		CHEMICALS	1620.00
		MISCELLANEOUS	1080.00

TOTAL ANNUAL OPERATING COST

00071644.05

TOTAL SERVICE CONTRACT COST

000127644.05

TOTAL ANNUAL OPERATING COST

00047264.00

TOTAL IN-HOUSE COST

000113018.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT RICHARDSON

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDERS	11666.00			
SAILS	00000.00	DPI	00067248	00524.53
STANFINS	16498.00	USER	0171314	04282.85
RECOMMENDED	11931.67			
		TOTAL ADDITIONAL REPRODUCTION COST		004807.38
TOTAL ADP PAPER COST	040095.67	TOTAL PAPER COST		0044903.05

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
SITE PREPARATION		1000.00
TOTAL INVESTMENT COST		41000.00
ANNUAL OPERATING COST		

VOLUME (TOTAL FRAMES/YEAR)	00705948
MASTER MICROFICHE	003443
DUPLICATE MICROFICHE	00055088
ADP PAPER	000842.00
USER SUPPLIES	
READER-PRINTER	480.00
MISCELLANEOUS	600.00

TOTAL ANNUAL OPERATING COST 00014165.30

TOTAL SERVICE CONTRACT COST 000055165.30

IN-HOUSE

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
FILM PROCESSOR		8754.00
SITE PREPARATION		2000.00
TOTAL INVESTMENT COST		50754.00
ANNUAL OPERATING COST		

COM EQUIPMENT LEASE		
REORDER		25044.00
DUPPLICATOR		5342.00

PRODUCTION SUPPLIES		
FILM		8100.00
CHEMICALS		1620.00
MISCELLANEOUS		1080.00

ADP PAPER		000842.00
MAINTENANCE		1218.00
USER SUPPLIES		
READER-PRINTER		480.00
MISCELLANEOUS		600.00

TOTAL ANNUAL OPERATING COST 00042706.00

TOTAL IN-HOUSE COST 000093460.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT RILEY

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	11180.40	DPI	0003900	00030.42
SAILS	00000.00	USER	0038850	00971.25
STANFINS	07479.00			
RECOMMENDED	08060.05	TOTAL ADDITIONAL REPRODUCTION COST		001001.67
TOTAL ADP PAPER COST	026719.45	TOTAL PAPER COST		0027721.12

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
SITE PREPARATION		1000.00
TOTAL INVESTMENT COST		41000.00
ANNUAL OPERATING COST		

VOLUME (TOTAL FRAMES/YEAR)	01016884
MASTER MICROFICHE	004960
DUPLICATE MICROFICHE	00079360
ADP PAPER	
USER SUPPLIES	
READER-PRINTER	
MISCELLANEOUS	

TOTAL ANNUAL OPERATING COST	00019467.80
TOTAL SERVICE CONTRACT COST	000060467.80

IN-HOUSE

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
FILM PROCESSOR		8754.00
SITE PREPARATION		2000.00
TOTAL INVESTMENT COST		50754.00
ANNUAL OPERATING COST		

COM EQUIPMENT LEASE		
RECORDER		25044.00
DUPLICATOR		5342.00

PRODUCTION SUPPLIES		
FILM		8100.00
CHEMICALS		1620.00
MISCELLANEOUS		1080.00

ADP PAPER		001623.00
MAINTENANCE		1218.00
USER SUPPLIES		
READER-PRINTER		480.00
MISCELLANEOUS		600.00

TOTAL ANNUAL OPERATING COST	00043487.00
TOTAL IN-HOUSE COST	000094241.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT RUCKER

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	08042.60			
SAILS	00000.00	00000420		00003.27
STAMPERS	14000.90	0022242		00556.05
RECOMMENDED	09800.25			
TOTAL ADP PAPER COST	031843.75	TOTAL ADDITIONAL REPRODUCTION COST		000559.32
		TOTAL PAPER COST		0032403.07

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
SITE PREPARATION		1000.00
TOTAL INVESTMENT COST		41000.00

ANNUAL OPERATING COST

VOLUME (TOTAL FRAMES/YEAR)	00548372
MASTER MICROFICHE	002674
DUPLICATE MICROFICHE	00042784
ADP PAPER	000973.00
USER SUPPLIES	480.00
READER-PRINTER	600.00
MISCELLANEOUS	
TOTAL ANNUAL OPERATING COST	00011561.74

TOTAL SERVICE CONTRACT COST

000052561.74

IN-HOUSE

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
FILM PROCESSOR		8754.00
SITE PREPARATION		2000.00
TOTAL INVESTMENT COST		50754.00

ANNUAL OPERATING COST

COM EQUIPMENT LEASE		25044.00
REORDER		5342.00
DUPLICATOR		
PRODUCTION SUPPLIES		8100.00
FILM		1620.00
CHEMICALS		1080.00
MISCELLANEOUS		

ADP PAPER	000973.00
MAINTENANCE	1218.00
USER SUPPLIES	
READER-PRINTER	480.00
MISCELLANEOUS	600.00

TOTAL ANNUAL OPERATING COST

00042837.00

TOTAL IN-HOUSE COST

000093591.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT SAM HOUSTON

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	17196.30			
SAILS	13969.20	DPI	00026416	00206.04
STANFINS	15549.85	USER	0062244	01556.10
RECOMMENDED	07507.40			
		TOTAL ADDITIONAL REPRODUCTION COST		001762.14
TOTAL ADP PAPER COST	054222.75	TOTAL PAPER COST		0055984.89

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST	IN-HOUSE	INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00	READERS		250	50000.00
READER-PRINTERS	5	5000.00	READER-PRINTERS		5	5000.00
SITE PREPARATION		1000.00	FILM PROCESSOR			8754.00
			SITE PREPARATION			2000.00
TOTAL INVESTMENT COST		56000.00	TOTAL INVESTMENT COST			65754.00

ANNUAL OPERATING COST

VOLUME (TOTAL FRAMES/YEAR)	01715814	ANNUAL OPERATING COST	
MASTER MICROFICHE	008369	COM EQUIPMENT LEASE	
DUPLICATE MICROFICHE	00133904	RECORDER	25044.00
ADP PAPER		DUPLICATOR	5342.00
USER SUPPLIES		PRODUCTION SUPPLIES	
READER-PRINTER		FILM	8100.00
MISCELLANEOUS		CHEMICALS	1520.00
		MISCELLANEOUS	1080.00

TOTAL ANNUAL OPERATING COST

00029011.49

TOTAL SERVICE CONTRACT COST

000085011.49

TOTAL ANNUAL OPERATING COST

00042931.00

TOTAL IN-HOUSE COST

000108685.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

SCHOFIELD BARRACKS

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	09768.00	DPI	00000000	00000.00
SAILS	00000.00	USER	00000000	00000.00
STANFINS	00000.00			
RECOMMENDED	05395.50	TOTAL ADDITIONAL REPRODUCTION COST		000000.00
TOTAL ADP PAPER COST	015163.50	TOTAL PAPER COST		0015163.50

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST
READERS	115	23000.00
READER-PRINTERS	3	3000.00
SITE PREPARATION		1000.00
TOTAL INVESTMENT COST		27000.00
ANNUAL OPERATING COST		
VOLUME (TOTAL FRAMES/YEAR)	00254246	
MASTER MICROFICHE	001240	0002529.60
DUPLICATE MICROFICHE	00019840	0002559.36
ADP PAPER		000711.00
USER SUPPLIES		
READER-PRINTER		360.00
MISCELLANEOUS		600.00
TOTAL ANNUAL OPERATING COST		00006759.96
TOTAL SERVICE CONTRACT COST		000033759.96

IN-HOUSE

INVESTMENT COST	QUANTITY	COST
READERS	115	23000.00
READER-PRINTERS	3	3000.00
FILM PROCESSOR		8754.00
SITE PREPARATION		2000.00
TOTAL INVESTMENT COST		36754.00
ANNUAL OPERATING COST		
COM EQUIPMENT LEASE		
REORDER		25044.00
DUPPLICATOR		5342.00
PRODUCTION SUPPLIES		
FILM		8100.00
CHEMICALS		1620.00
MISCELLANEOUS		1080.00
ADP PAPER		000711.00
MAINTENANCE		1218.00
USER SUPPLIES		
READER-PRINTER		360.00
MISCELLANEOUS		600.00
TOTAL ANNUAL OPERATING COST		00042455.00
TOTAL IN-HOUSE COST		000079209.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT SHAFTER

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	06270.15	DPI	00000000	00000.00
SAILS	00000.00	USER	00000000	00000.00
STANFINS	10347.55			
RECOMMENDED	07751.02	TOTAL ADDITIONAL REPRODUCTION COST		000000.00
TOTAL ADP PAPER COST	024368.72	TOTAL PAPER COST		0024368.72

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST	IN-HOUSE	INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00	READERS	180	36000.00	
READER-PRINTERS	4	4000.00	READER-PRINTERS	4	4000.00	
SITE PREPARATION		1000.00	FILM PROCESSOR		8754.00	
TOTAL INVESTMENT COST		41000.00	SITE PREPARATION		2000.00	
			TOTAL INVESTMENT COST		50754.00	

ANNUAL OPERATING COST

VOLUME (TOTAL FRAMES/YEAR)	00644618
MASTER MICROFICHE	003144
DUPLICATE MICROFICHE	00050304
ADP PAPER	000502.00
USER SUPPLIES	480.00
READER-PRINTER	000.00
MISCELLANEOUS	000.00
TOTAL ANNUAL OPERATING COST	00012762.06

TOTAL ANNUAL OPERATING COST

TOTAL SERVICE CONTRACT COST

COM EQUIPMENT LEASE	25044.00
RECORDER	5342.00
DUPLICATOR	
PRODUCTION SUPPLIES	8100.00
FILM	1000.00
CHEMICALS	1080.00
MISCELLANEOUS	
ADP PAPER	000502.00
MAINTENANCE	1218.00
USER SUPPLIES	
READER-PRINTER	480.00
MISCELLANEOUS	600.00
TOTAL ANNUAL OPERATING COST	00042366.00
TOTAL IN-HOUSE COST	000093120.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT SHERIDAN

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	14913.20	DPI	00000000	00000.00
SALES	00000.00	USER	0001264	00031.60
STAFFS	10065.40			
RECOMMENDED	06108.45	TOTAL ADDITIONAL REPRODUCTION COST		000031.60
TOTAL ADP PAPER COST	031087.05	TOTAL PAPER COST		0031118.65

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
SITE PREPARATION		1000.00
TOTAL INVESTMENT COST		41000.00
ANNUAL OPERATING COST		

VOLUME (TOTAL FRAMES/YEAR)	00923542
MASTER MICROFICHE	004505
Duplicate MICROFICHE	00072080
ADP PAPER	000994.00
USER SUPPLIES	
READER-PRINTER	480.00
MISCELLANEOUS	300.00

TOTAL ANNUAL OPERATING COST 00017300.90

TOTAL SERVICE CONTRACT COST 000056300.90

IN-HOUSE

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
FILM PROCESSOR		8754.00
SITE PREPARATION		2000.00
TOTAL INVESTMENT COST		50754.00
ANNUAL OPERATING COST		

COM EQUIPMENT LEASE	25044.00
REORDER	5342.00
Duplicator	

PRODUCTION SUPPLIES	8100.00
FILM	1620.00
CHEMICALS	1080.00
MISCELLANEOUS	

ADP PAPER	000994.00
MAINTENANCE	1218.00
USER SUPPLIES	

READER-PRINTER	480.00
MISCELLANEOUS	600.00
TOTAL ANNUAL OPERATING COST	00042858.00

TOTAL IN-HOUSE COST 000093612.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT SILL

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	15801.00			
SAILS	00000.00	DPI	00000000	00000.00
STAMPINS	27691.30	USER	0051554	01288.85
RECOMMENDED	11361.62			
		TOTAL ADDITIONAL REPRODUCTION COST		001288.85
TOTAL ADP PAPER COST	054853.92	TOTAL PAPER COST		0056142.77

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
SITE PREPARATION		1000.00
TOTAL INVESTMENT COST		41000.00
ANNUAL OPERATING COST		

VOLUME (TOTAL FRAMES/YEAR)	01129734
MASTER MICROFICHE	005510
DUPLICATE MICROFICHE	00088160
ADP PAPER	001847.00
USER SUPPLIES	
READER-PRINTER	480.00
MISCELLANEOUS	600.00
TOTAL ANNUAL OPERATING COST	00021550.80
TOTAL SERVICE CONTRACT COST	000062550.80

IN-HOUSE

INVESTMENT COST	QUANTITY	COST
READERS	180	36000.00
READER-PRINTERS	4	4000.00
FILM PROCESSOR		8754.00
SITE PREPARATION		2000.00
TOTAL INVESTMENT COST		50754.00
ANNUAL OPERATING COST		

COM EQUIPMENT LEASE		
REORDER		25044.00
DUPLICATOR		5342.00

PRODUCTION SUPPLIES		
FILM		8100.00
CHEMICALS		1620.00
MISCELLANEOUS		1080.00

ADP PAPER		001847.00
MAINTENANCE		1218.00
USER SUPPLIES		
READER-PRINTER		480.00
MISCELLANEOUS		600.00

TOTAL ANNUAL OPERATING COST

00043711.00

TOTAL IN-HOUSE COST

000094465.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

FORT STEWART

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	09363.00	DPI	00000052	00000 40
SAILS	16831.80	USER	0032836	00820.90
STANFINS	12312.00			
RECOMMENDED	10643.80	TOTAL ADDITIONAL REPRODUCTION COST		000821.30
TOTAL ADP PAPER COST	049150.60	TOTAL PAPER COST		0049971.90

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

INVESTMENT COST	QUANTITY	COST	IN-HOUSE	INVESTMENT COST	QUANTITY	COST
READERS	250	50000.00		READERS	250	50000.00
READER-PRINTERS	5	5000.00		READER-PRINTERS	5	5000.00
SITE PREPARATION		1000.00		FILM PROCESSOR		8754.00
TOTAL INVESTMENT COST		56000.00		SITE PREPARATION		2000.00
				TOTAL INVESTMENT COST		65754.00

ANNUAL OPERATING COST

VOLUME (TOTAL FRAMES/YEAR)	01002150
MASTER MICROFICHE	004888
DUPLICATE MICROFICHE	00078208
ADP PAPER	
USER SUPPLIES	
READER-PRINTER	
MISCELLANEOUS	

TOTAL ANNUAL OPERATING COST

TOTAL SERVICE CONTRACT COST

ANNUAL OPERATING COST

COM EQUIPMENT LEASE	
RECORDER	
DUPLICATOR	
PRODUCTION SUPPLIES	
FILM	
CHEMICALS	
MISCELLANEOUS	

ADP PAPER	000935.00
MAINTENANCE	1218.00
USER SUPPLIES	
READER-PRINTER	600.00
MISCELLANEOUS	600.00
TOTAL ANNUAL OPERATING COST	00042919.00
TOTAL IN-HOUSE COST	000108673.00

COM COST/BENEFIT ANALYSIS (ANNUAL)

WALTER REED ARMY MEDICAL CENTER

CURRENT PRODUCTION MODE

ADP PAPER	COST	ADDITIONAL REPRODUCTIONS	QUANTITY	COST
SIDPERS	00000.00	DPI	00000000	00000.00
SAILS	00000.00	USER	00000000	00000.00
STANFINS	03796.70			
RECOMMENDED	00353.07	TOTAL ADDITIONAL REPRODUCTION COST		000000.00
TOTAL ADP PAPER COST	004149.77	TOTAL PAPER COST		0004149.77

PROPOSED PRODUCTION MODES

SERVICE CONTRACT

IN-HOUSE

INVESTMENT COST	QUANTITY	COST	INVESTMENT COST	QUANTITY	COST
READERS	065	13000.00	READERS	065	13000.00
READER-PRINTERS	3	3000.00	READER-PRINTERS	3	3000.00
SITE PREPARATION		1000.00	FILM PROCESSOR		8754.00
TOTAL INVESTMENT COST		17000.00	SITE PREPARATION		2000.00
ANNUAL OPERATING COST			TOTAL INVESTMENT COST		26754.00
VOLUME (TOTAL FRAMES/YEAR)	00114966		ANNUAL OPERATING COST		
MASTER MICROFICHE	000560	0001293.60	COM EQUIPMENT LEASE		
DUPLICATE MICROFICHE	00008960	0001308.16	RECORDER		25044.00
ADP PAPER		000000.00	DUPLICATOR		5342.00
USER SUPPLIES			PRODUCTION SUPPLIES		
READER-PRINTER		360.00	FILM		8100.00
MISCELLANEOUS		600.00	CHEMICALS		1620.00
TOTAL ANNUAL OPERATING COST		00003561.76	MISCELLANEOUS		1080.00
TOTAL SERVICE CONTRACT COST		000020561.76	ADP PAPER		000000.00
			MAINTENANCE		1218.00
			USER SUPPLIES		
			READER-PRINTER		360.00
			MISCELLANEOUS		600.00
			TOTAL ANNUAL OPERATING COST		00041744.00
			TOTAL IN-HOUSE COST		000068498.00

COMPACS ECONOMIC ANALYSIS

1. Installation: Overall

2. Date of Submission: 11 Jun 76

3. Economic Life:

4. Discount Rate: 10%

5. Mode of Operation:

6. Sails Extended:

7. Projected Extension:

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(3) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 904,352	\$ 1,964,472	\$ (1,060,120)	.954	\$ (1,011,354)
2	1,861,928	1,610,356	251,572	.867	218,113
3	1,870,429	1,160,266	710,163	.788	559,608
4	1,870,429	1,160,266	710,163	.717	509,187
5	1,870,429	1,160,266	710,163	.652	463,026
TOTALS	\$ 8,377,567	\$ 7,055,626	\$ 1,321,941	-	\$ 738,580

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Belvoir

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: No

7. Projected Extension: 3rd Qtr FY 77

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 11,568	\$ 45,696	\$ (34,128)	.954	\$ (32,558)
2	23,136	9,393	13,743	.867	11,915
3	23,136	9,393	13,743	.788	10,829
4	23,136	9,393	13,743	.717	9,854
5	23,136	9,393	13,743	.652	8,960
TOTALS	\$104,112	\$ 83,268	\$ 20,844	-	\$ 9,000

COMPACS ECONOMIC ANALYSIS

1. Installation:		Fort Ben Harrison			
2. Date of Submission:		11 Jun 76			
3. Economic Life:		NA			
4. Discount Rate:		10%			
5. Mode of Operation:		Service Contract			
6. Sails Extended:		No			
7. Projected Extension:		1st Qtr, FY 78			
(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ ----	\$ ----	\$ ----	.954	\$ ----
2	24,073	52,677	(28,604)	.867	(24,800)
3	24,073	11,677	12,396	.788	9,768
4	24,073	11,677	12,396	.717	8,888
5	24,073	11,677	12,396	.652	8,082
TOTALS	\$96,292	\$ 87,708	\$ 8,584	-	\$ 1,938

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Benning
 2. Date of Submission: 11 Jun 76
 3. Economic Life: 5 Years
 4. Discount Rate: 10%
 5. Mode of Operation: IN-HOUSE
 6. Sails Extended: No

7. Projected Extension: 3rd Qtr FY77

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 32,789	\$ 72,370	\$ (39,581)	.954	\$ (37,760)
2	65,578	43,233	22,345	.867	19,373
3	65,578	43,233	22,345	.788	17,608
4	65,578	43,233	22,345	.717	16,021
5	65,578	43,233	22,345	.652	14,569
TOTALS	\$295,101	\$245,302	\$ 49,799	-	\$ 29,811

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Bliss

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: No

7. Projected Extension: 3rd Qtr FY 77

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 23,379	\$ 52,400	\$ (29,021)	.954	\$ (27,686)
2	46,758	22,800	23,958	.867	20,772
3	46,758	22,800	23,958	.788	18,879
4	46,758	22,800	23,958	.717	17,178
5	46,758	22,800	23,958	.652	15,621
TOTALS	\$ 210,411	\$ 143,600	\$ 66,811	-	\$ 44,764

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Bragg

2. Date of Submission: 11 Jun 76

3. Economic Life: 5 Years

4. Discount Rate: 10%

5. Mode of Operation: IN-HOUSE

6. Sails Extended: Yes

7. Projected Extension: 2nd Qtr FY 77

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 45,217	\$ 82,222	\$ (37,005)	.954	\$ (35,303)
2	60,290	34,963	25,327	.867	21,959
3	60,290	34,963	25,327	.788	19,958
4	60,290	34,963	25,327	.717	18,159
5	60,290	34,963	25,327	.652	16,513
TOTALS	\$ 286,377	\$ 222,074	\$ 64,303	-	\$ 41,286

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Campbell

2. Date of Submission: 11 Jun 76

3. Economic Life: 5 Years

4. Discount Rate: 10%

5. Mode of Operation: IN-HOUSE

6. Sails Extended: No

7. Projected Extension: 4th Qtr FY 77

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 6,539	\$ 61,477	\$ (54,938)	.954	\$ (52,411)
2	26,157	42,891	(16,734)	.867	(14,508)
3	26,157	42,891	(16,734)	.788	(13,186)
4	26,157	42,891	(16,734)	.717	(11,998)
5	26,157	42,891	(16,734)	.652	(10,911)
TOTALS	\$ 111,167	\$ 233,041	\$ (121,874)	-	\$ (103,014)

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Carson

2. Date of Submission: 11 Jun 76

3. Economic Life: 5 Years

4. Discount Rate: 10%

5. Mode of Operation: IN-HOUSE

6. Sails Extended: Yes

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 111,917	\$ 110,886	\$ 1,031	.954	\$ 984
2	111,917	45,132	66,785	.867	57,903
3	111,917	45,132	66,785	.788	52,627
4	111,917	45,132	66,785	.717	47,885
5	111,917	45,132	66,785	.652	43,544
TOTALS	\$ 559,585	\$ 291,414	\$ 268,171	-	\$ 202,943

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Detrick

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: No

7. Projected Extension: 1st Qtr FY 78

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	PRESENT ALTERNATIVE	PROPOSED ALTERNATIVE			
1	\$ ---	\$ ---	---	.954	\$ ---
2	4,367	21,494	(17,127)	.867	(14,849)
3	4,367	4,494	(127)	.788	(100)
4	4,367	4,494	(127)	.717	(91)
5	4,367	4,494	(127)	.652	(83)
TOTALS	\$ 17,468	\$ 34,976	\$ (17,508)	-	\$ (15,123)

COMPACS ECONOMIC ANALYSIS

1. Installation:		Fort Devens			
2. Date of Submission:		11 Jun 76			
3. Economic Life:		NA			
4. Discount Rate:		10%			
5. Mode of Operation:		Service Contract			
6. Sails Extended:		Yes			
7. Projected Extension: 1st Qtr FY 78					
(1) YEAR OF OPERATION	OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ —	\$ —	\$ —	.954	\$ —
2	46,064	70,342	(24,278)	.867	(21,049)
3	46,064	14,342	31,722	.788	24,997
4	46,064	14,342	31,722	.717	22,745
5	46,064	14,342	31,722	.652	20,683
TOTALS	\$ 184,256	\$ 113,368	\$ 70,888	-	\$ 47,376

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Dix

2. Date of Submission: 11 Jun 76

3. Economic Life: 5 Years

4. Discount Rate: 10%

5. Mode of Operation: IN-HOUSE

6. Sails Extended: Yes

7. Projected Extension: 4th Qtr FY 77

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 16,802	\$ 76,778	\$ (59,976)	.954	\$ (57,217)
2	67,206	44,097	23,109	.867	20,036
3	67,206	44,097	23,109	.788	18,210
4	67,206	44,097	23,109	.717	16,569
5	67,206	44,097	23,109	.652	15,067
TOTALS	\$ 285,626	\$ 253,166	\$ 32,460	-	\$ 12,667

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Eustis

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: No

7. Projected Extension: 3rd Qtr FY 77

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 38,336	\$ 49,238	\$ (10,902)	.954	\$ (10,401)
2	76,673	16,476	60,197	.867	52,191
3	76,673	16,476	60,197	.788	47,435
4	76,673	16,476	60,197	.717	43,161
5	76,673	16,476	60,197	.652	39,248
TOTALS	\$ 345,028	\$ 115,142	\$ 229,886	-	\$ 171,634

COMPACS ECONOMIC ANALYSIS

1. Installation: Fitzsimons AMC

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: No

7. Projected Extension: 1st Qtr FY 78

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	PRESENT ALTERNATIVE	PROPOSED ALTERNATIVE			
1	\$ —	\$ —	\$ —	.954	\$ —
2	6,792	22,282	(15,490)	.867	(13,430)
3	6,792	5,282	1,510	.788	1,190
4	6,792	5,282	1,510	.717	1,083
5	6,792	5,282	1,510	.652	985
TOTALS	\$ 27,168	\$ 38,128	\$ (10,960)	—	\$ (10,172)

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Gordon
 2. Date of Submission: 11 Jun 76
 3. Economic Life: 5 Years
 4. Discount Rate: 10%
 5. Mode of Operation: IN-HOUSE
 6. Sails Extended: No

7. Projected Extension: 1st Qtr FY 78

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ —	\$ —	\$ —	.954	\$ —
2	19,991	93,626	(73,635)	.867	(63,842)
3	19,991	42,872	(22,881)	.788	(18,030)
4	19,991	42,872	(22,881)	.717	(16,406)
5	19,991	42,872	(22,881)	.652	(14,918)
TOTALS	\$ 79,964	\$ 222,242	\$ (142,278)	—	\$ (113,196)

COMPACS ECONOMIC ANALYSIS

1. Installation: Army Support Group Homestead AFB

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: Yes

7. Projected Extension: 1st Qtr FY 78

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$	\$	\$.954	\$
2	6,937	61,233	(54,296)	.867	(47,075)
3	6,937	5,233	1,704	.788	1,343
4	6,937	5,233	1,704	.717	1,222
5	6,937	5,233	1,704	.652	1,111
TOTALS	\$ 27,748	\$ 76,932	\$ (49,184)	-	\$ (43,399)

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Hood

2. Date of Submission: 11 Jun 76

3. Economic Life: 5 Years

4. Discount Rate: 10%

5. Mode of Operation: IN-HOUSE

6. Sails Extended: Yes

7. Projected Extension: 3rd Qtr FY 77

(1) YEAR OF OPERATION	OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$	49,198	\$ 86,946	.954	\$ (36,012)
2		98,396	42,931	.867	48,088
3		98,396	42,931	.788	43,706
4		98,396	42,931	.717	39,768
5		98,396	42,931	.652	36,163
TOTALS	\$	442,782	\$ 258,670	-	\$ 131,713

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Huachuca

2. Date of Submission: 11 Jun 76

3. Economic Life: 5 Years

4. Discount Rate: 10%

5. Mode of Operation: IN-HOUSE

6. Sails Extended: No

7. Projected Extension: Test Site

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	PRESENT ALTERNATIVE	PROPOSED ALTERNATIVE			
1	\$ 18,984	\$ 93,067	\$ (74,083)	.954	\$ (70,675)
2	18,984	42,313	(23,329)	.867	(20,226)
3	18,984	42,313	(23,329)	.788	(18,383)
4	18,984	42,313	(23,329)	.717	(16,727)
5	18,984	42,313	(23,329)	.652	(15,211)
TOTALS	\$ 94,920	\$ 262,319	\$ (167,399)	-	\$ (141,222)

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Indiantown Gap

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: SERVICE CONTRACT

6. Sails Extended: Yes

7. Projected Extension: 4th Qtr FY 77

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 16,850	\$ 63,289	\$ (46,439)	.954	\$ (44,303)
2	67,400	29,158	38,242	.867	33,156
3	67,400	29,158	38,242	.788	30,135
4	67,400	29,158	38,242	.717	27,420
5	67,400	29,158	38,242	.652	24,934
TOTALS	\$286,450	\$179,921	\$ 106,529	-	\$ 71,342

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Jackson
 2. Date of Submission: 11 Jun 76
 3. Economic Life: NA
 4. Discount Rate: 10%
 5. Mode of Operation: Service Contract
 6. Sails Extended: Yes

7. Projected Extension: 4th Qtr FY 77

(1) YEAR OF OPERATION	(2) OPERATIONS		(3) PROPOSED ALTERNATIVE	(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3)				
1	\$ 13,895		\$ 62,373	\$ (48,478)	.954	\$ (46,248)
2	55,581		25,490	30,091	.867	26,089
3	55,581		25,490	30,091	.788	23,712
4	55,581		25,490	30,091	.717	21,575
5	55,581		25,490	30,091	.652	19,619
TOTALS	\$ 236,219		\$ 164,333	\$ 71,886	-	\$ 44,747

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Knox

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: Yes

7. Projected Extension: 2nd Qtr FY77

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 58,209	\$ 92,987	\$ (34,778)	.954	\$ (33,178)
2	77,611	49,316	28,295	.867	24,532
3	77,611	49,316	28,295	.788	22,296
4	77,611	49,316	28,295	.717	20,288
5	77,611	49,316	28,295	.652	18,448
TOTALS	\$ 368,653	\$ 290,251	\$ 78,402	-	\$ 52,386

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Leavenworth

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: Yes

7. Projected Extension: 4th Qtr FY 77

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(6) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 11,471	\$ 64,893	\$ (53,422)	.954	\$ (50,965)
2	45,885	35,572	10,313	.867	8,941
3	45,885	35,572	10,313	.788	8,127
4	45,885	35,572	10,313	.717	7,394
5	45,885	35,572	10,313	.652	6,724
TOTALS	\$ 195,011	\$ 207,181	\$ (12,170)	-	\$ (19,779)

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Lee

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: Yes

7. Projected Extension: 3rd Qtr FY 77

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 34,758	\$ 72,878	\$ (38,120)	.954	\$ (36,366)
2	69,516	33,757	35,759	.867	31,003
3	69,516	33,757	35,759	.788	28,178
4	69,516	33,757	35,759	.717	25,639
5	69,516	33,757	35,759	.652	23,315
TOTALS	\$ 312,822	\$ 207,906	\$ 104,916	-	\$ 71,769

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Leonard Wood

2. Date of Submission: 11 Jun 76

3. Economic Life: 5 Years

4. Discount Rate: 10%

5. Mode of Operation: IN-HOUSE

6. Sails Extended: Yes

7. Projected Extension: 4th Qtr FY 77

(1) YEAR OF OPERATION	OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 13,945	\$ 76,432	\$ (62,487)	.954	\$ (59,613)
2	55,778	42,711	13,067	.867	11,329
3	55,778	42,711	13,067	.788	10,297
4	55,778	42,711	13,067	.717	9,369
5	55,778	42,711	13,067	.652	8,520
TOTALS	\$ 237,057	\$ 247,276	\$ (10,219)	-	\$ (20,098)

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Lewis

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: No

7. Projected Extension: Test Site

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 30,851	\$ 56,946	\$ (26,095)	.954	\$ (24,895)
2	30,851	15,946	14,905	.867	12,923
3	30,851	15,946	14,905	.788	11,745
4	30,851	15,946	14,905	.717	10,687
5	30,851	15,946	14,905	.652	9,718
TOTALS	\$ 154,255	\$ 120,730	\$ 33,525	-	\$ 20,178

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort McClellan

2. Date of Submission: 11 Jun 76

3. Economic Life: 5 Years

4. Discount Rate: 10%

5. Mode of Operation: IN-HOUSE

6. Sails Extended: No

7. Projected Extension: 2nd Qtr FY 78

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ —	\$ —	\$ —	.954	\$ —
2	27,659	83,353	(55,694)	.867	(48,287)
3	27,659	43,465	(15,806)	.788	(12,455)
4	27,659	43,465	(15,806)	.717	(11,333)
5	27,659	43,465	(15,806)	.652	(10,306)
TOTALS	\$ 110,636	\$ 213,748	\$ (103,112)	—	\$ (82,381)

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort McPherson

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: Yes

7. Projected Extension: 2nd Qtr FY 77

(1) YEAR OF OPERATION	OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 22,366	\$ 66,930	\$ (44,564)	.954	\$ (42,514)
2	29,822	14,573	15,249	.867	13,221
3	29,822	14,573	15,249	.788	12,016
4	29,822	14,573	15,249	.717	10,934
5	29,822	14,573	15,249	.652	9,942
TOTALS	\$ 141,654	\$125,222	\$ 16,432	-	\$ 3,599

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Meade

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: No

7. Projected Extension: 2nd Qtr FY 77

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 46,261	\$ 60,005	\$ (13,744)	.954	\$ (13,112)
2	61,681	25,340	36,341	.867	31,508
3	61,681	25,340	36,341	.788	28,637
4	61,681	25,340	36,341	.717	26,056
5	61,681	25,340	36,341	.652	23,694
TOTALS	\$ 292,985	\$ 161,365	\$ 131,620	-	\$ 96,783

COMPACS ECONOMIC ANALYSIS

1. Installation: Military District of Washington

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: Yes

7. Projected Extension: 2nd Qtr FY 77

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 54,323	\$ 72,851	\$ (18,528)	.954	\$ (17,676)
2	72,431	22,468	49,963	.867	43,318
3	72,431	22,468	49,963	.788	39,371
4	72,431	22,468	49,963	.717	35,823
5	72,431	22,468	49,963	.652	32,576
TOTALS	\$ 344,047	\$162,723	\$ 181,324	-	\$ 133,412

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Ord

2. Date of Submission: 11 Jun 76

3. Economic Life: 5 Years

4. Discount Rate: 10%

5. Mode of Operation: IN-HOUSE

6. Sails Extended: No

7. Projected Extension: 1st Qtr FY 78

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ —	\$ —	\$ —	.954	\$ —
2	77,728	94,652	(16,924)	.867	(14,673)
3	77,728	43,896	33,832	.788	26,660
4	77,728	43,896	33,832	.717	24,258
5	77,728	43,896	33,832	.652	22,058
TOTALS	\$ 310,912	\$226,340	\$ 84,572	—	\$ 58,303

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Polk
 2. Date of Submission: 11 Jun 76
 3. Economic Life: 5 Years
 4. Discount Rate: 10%
 5. Mode of Operation: IN-HOUSE
 6. Sails Extended: No

7. Projected Extension: 2nd Qtr FY 78

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ —	\$ —	\$ —	.954	\$ —
2	25,506	101,202	(75,696)	.867	(65,628)
3	34,007	47,264	(13,257)	.788	(10,447)
4	34,007	47,264	(13,257)	.717	(9,505)
5	34,007	47,264	(13,257)	.652	(8,644)
TOTALS	\$ 127,527	\$ 242,994	\$ (115,467)	—	\$ (94,224)

COMPACS ECONOMIC ANALYSIS

1. Installation: Presidio of San Francisco

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: Yes

7. Projected Extension: 3rd Qtr FY 77

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 59,616	\$ 91,822	\$ (32,206)	.954	\$ (30,725)
2	119,232	71,644	47,588	.867	41,259
3	119,232	71,644	47,588	.788	37,499
4	119,232	71,644	47,588	.717	34,121
5	119,232	71,644	47,588	.652	31,027
TOTAL	\$ 536,544	\$ 378,398	\$ 8,146	-	\$ 113,181

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Richardson

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: No

7. Projected Extension: 2nd Qtr FY 77

(1) YEAR OF OPERATION	(2) PRESENT ALTERNATIVE		(3) PROPOSED ALTERNATIVE		(4) DIFFERENTIAL -COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	OPERATIONS						
1	\$	33,677	\$	51,624	\$ (17,947)	.954	\$ (17,121)
2		44,903		14,165	30,738	.867	26,650
3		44,903		14,165	30,738	.788	24,222
4		44,903		14,165	30,738	.717	22,039
5		44,903		14,165	30,738	.652	20,041
TOTALS	\$	213,289	\$	108,284	\$ 105,005	-	\$ 75,831

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Riley

2. Date of Submission: 11 Jun 76

3. Economic Life: 5 Years

4. Discount Rate: 10%

5. Mode of Operation: IN-HOUSE

6. Sails Extended: No

7. Projected Extension: 4th Qtr FY 77

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 6,930	\$ 76,447	\$ (69,517)	.954	\$ (66,319)
2	27,721	42,772	(15,051)	.867	(13,049)
3	27,721	42,772	(15,051)	.788	(11,860)
4	27,721	42,772	(15,051)	.717	(10,792)
5	27,721	42,772	(15,051)	.652	(9,813)
TOTALS	\$ 117,814	\$247,535	\$ (129,721)	-	\$ (111,833)

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Rucker

2. Date of Submission: 11 Jun 76

3. Economic Life: 5 Years

4. Discount Rate: 10%

5. Mode of Operation: IN-HOUSE

6. Sails Extended: No

7. Projected Extension: 1st Qtr FY 78

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$	\$	\$.954	\$
2	32,403	93,591	(61,188)	.867	(53,050)
3	32,403	42,837	(10,434)	.788	(8,222)
4	32,403	42,837	(10,434)	.717	(7,481)
5	32,403	42,837	(10,434)	.652	(6,803)
TOTALS	\$ 129,612	\$ 222,102	\$ (92,490)	-	\$ (75,556)

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Sam Houston

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: Yes

7. Projected Extension: Test Site

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 55,985	\$ 85,011	\$ (29,026)	.954	\$ (27,691)
2	55,985	29,011	26,974	.867	23,386
3	55,985	29,011	26,974	.788	21,256
4	55,985	29,011	26,974	.717	19,340
5	55,985	29,011	26,974	.652	17,587
TOTALS	\$ 279,925	\$ 201,055	\$ 78,870	-	\$ 53,870

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Shafter

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: No

7. Projected Extension: 2nd Qtr FY 77

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 29,649	\$ 55,642	\$ (25,993)	.954	\$ (24,797)
2	39,532	19,522	20,010	.867	17,349
3	39,532	19,522	20,010	.788	15,768
4	39,532	19,522	20,010	.717	14,347
5	39,532	19,522	20,010	.652	13,047
TOTALS	\$ 187,777	\$ 133,730	\$ 54,047	-	\$ 35,714

COMPACS ECONOMIC ANALYSIS

1. Installation: Fort Sheridan

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: No

7. Projected Extension: 4th Qtr FY 77

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ 7,780	\$ 45,325	\$ (37,545)	.954	\$ (35,818)
2	31,119	17,301	13,818	.867	11,980
3	31,119	17,301	13,818	.788	10,889
4	31,119	17,301	13,818	.717	9,908
5	31,119	17,301	13,818	.652	9,009
TOTALS	\$ 132,256	\$ 114,529	\$ 17,727	-	\$ 5,968

COMPACS ECONOMIC ANALYSIS

1. Installation:		Fort Sill	
2. Date of Submission:		11 Jun 76	
3. Economic Life:		5 Years	
4. Discount Rate:		10%	
5. Mode of Operation:		IN-HOUSE	
6. Sails Extended:		No	
7. Projected Extension:		3rd Qtr FY 77	

(1) YEAR OF OPERATION	(3) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	PROPOSED ALTERNATIVE			
1	\$ 28,071	\$ 72,609	\$ (44,538)	.954	\$ (42,489)
2	56,143	43,711	12,432	.867	10,779
3	56,143	43,711	12,432	.788	9,796
4	56,143	43,711	12,432	.717	8,914
5	56,143	43,711	12,432	.652	8,106
TOTALS	\$ 252,643	\$ 247,453	\$ 5,190	-	\$ (4,894)

COMPACS ECONOMIC ANALYSIS

1. Installation:		Fort Stewart					
2. Date of Submission:		11 Jun 76					
3. Economic Life:		NA					
4. Discount Rate:		10%					
5. Mode of Operation:		Service Contract					
6. Sails Extended:		Yes					
7. Projected Extension:		3rd Qtr FY 77					
(1) YEAR OF OPERATION	(2) PRESENT ALTERNATIVE	(3) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)	
		PRESENT ALTERNATIVE	PROPOSED ALTERNATIVE				
1	\$ 24,986		\$ 65,328	\$ (40,342)	.954	\$ (38,486)	
2	49,972		18,656	31,316	.867	27,151	
3	49,972		18,656	31,316	.788	24,677	
4	49,972		18,656	31,316	.717	22,454	
5	49,972		18,656	31,316	.652	20,418	
TOTALS	\$ 224,874		\$ 139,952	\$ 84,922	-	\$ 56,217	

COMPACS ECONOMIC ANALYSIS

1. Installation: Walter Reed AMC

2. Date of Submission: 11 Jun 76

3. Economic Life: NA

4. Discount Rate: 10%

5. Mode of Operation: Service Contract

6. Sails Extended: No

7. Projected Extension: 1st Qtr FY 78

(1) YEAR OF OPERATION	(2) OPERATIONS		(4) DIFFERENTIAL COST (2-3)	(5) DISCOUNT FACTOR	(6) PRESENT VALUE DIFFERENTIAL COST (4 X 5)
	(2) PRESENT ALTERNATIVE	(3) PROPOSED ALTERNATIVE			
1	\$ —	\$ —	\$ —	.954	\$ —
2	4,150	20,562	(16,412)	.867	(14,229)
3	4,150	3,562	588	.788	463
4	4,150	3,562	588	.717	422
5	4,150	3,562	588	.652	383
TOTALS	\$ 16,600	\$ 31,248	\$ (14,648)	—	\$ (12,961)

ANNEX P, USAAA Audit Report

Page

Ltr, IGAA-ECD(PAO), Subject: "Review
of Methodology Used and Results of
Cost/Benefit Analyses at BASOPS In-
stallations to be Operated in the
Computer Output Microform Mode; Audit
Report: EC 76-516", dated 16 July 76

P-2



DEPARTMENT OF THE ARMY
East Central District
U. S. ARMY AUDIT AGENCY
6701 Elkridge Landing Road
Linthicum Heights, Maryland 21090

IGAA-ECD (PAO)

16 JUL 1976

SUBJECT: Review of Methodology Used and Results of Cost/Benefit Analyses
at BASOPS Installations to be Operated in the Computer Output
Microform Mode
Audit Report: EC 76-516

DAAG-AMZ-C
WASH DC 20314

1. Introduction. The U. S. Army Audit Agency performed a desk review of the methodology used and the results of cost/benefit analyses (CBA's), prepared in conjunction with the proposed conversion of Base Operating Information Systems (BASOPS) ADP paper output to microform, in accordance with a request dated 27 January 1976, from The Adjutant General (TAG). The review was initiated 15 March 1976, and suspended 29 March 1976, at the verbal request of the Project Manager, Computer Output Microforms Program and Concepts Study (COMPACS). The suspension was requested in order to permit an updating of the original CBA's in accordance with new guidance issued by the COMPACS Study Advisory Group (SAG). The review was resumed on 7 June 1976, when the updated CBA's became available for our use.

2. Background.

a. Chief of Staff Memorandum, subject: Computer Output Microforms Program and Concepts Study (COMPACS), dated 6 December 1974, established the COMPACS Study Group. The mission of the COMPACS Study Group was to conduct a program and systems development study for converting BASOPS computer output to microform at 42 Army installations and prepare a microform document or information system (MICRODIS) proposal in accordance with AR 340-22, The Army Microforms Program, dated 12 November 1973. The proposal was to include a CBA for each of the BASOPS installations. The results of the CBA's were to serve as the bases for the decision to convert to microform output or remain with the current paper system.

b. A prototype test was conducted by COMPACS during the period July through October 1975 at Fort Carson, Colorado; Fort Huachuca, Arizona; Fort Lewis, Washington; and Fort Sam Houston, Texas. Objectives of the test were to (i) validate those ADP equipment outputs capable of conversion to microform, (ii) determine a standard MICRODIS configuration needed to

16 JUL 1976

IGAA-ECD (PAO)

SUBJECT: Review of Methodology Used and Results of Cost/Benefit Analyses
at BASOPS Installations to be Operated in the Computer Output
Microform Mode

Audit Report: EC 76-516

satisfy BASOPS installation requirements, and (iii) identify cost factors to develop a CBA for each BASOPS installation. Two of the test sites, Forts Lewis and Sam Houston, participated in the test by contracting with commercial service bureaus for the production of microfiche. The other sites, Forts Huachuca and Carson, participated in the test on an "in-house" basis, which entailed the procurement, installation, and operation of production equipment. All test sites used a variety of microfiche viewing and copying equipment available from the GSA schedule. The test evaluated the production, distribution, and use of selected BASOPS reports on microfiche. Certain reports with wide distributions were tested by selected users only.

c. Information was collected from the 39 1/ BASOPS installations, including the 4 test sites, as to the volume of ADP paper used in BASOPS report production. During October and November 1975, the COMPACS Study Group received the results of the test which included a listing of the report production mode at each test site. The listing was subsequently updated based on test site changes. COMPACS then designated each report for placement into one of three production categories (mandatory, recommended, and other) which was subsequently forwarded to the proponent (DCSLOG for SAILS, MILPERCEN for SIDPERS, and COA for STANFINS) who concurred in the designated production category. From this information, Study Group personnel determined the number of microfiche needed and the cost of the ADP paper that would be saved in a microfiche mode. Equipment 2/ and other costs applicable to the proposed microfiche operation were determined and CBA's completed.

3. Results of Review.

a. The methodology used involved evaluation of such factors as (i) volume, type, and frequency of reports generated, (ii) ADP paper costs, (iii) systems (SAILS, SIDPERS, STANFINS) in use, (iv) equipment and maintenance costs, (v) cost of microform products, and (vi) availability of service bureaus (commercial or Government-operated) to provide required services to specific BASOPS installations. Based on our review, we concluded that the methodology used appeared reasonable and complete.

1/ Three installations did not participate in the data collection because (i) at one site, the operations were considered unique due to their daily support of other services and an entity outside of the DOD, (ii) at another site, the operation was not considered a BASOPS site at the time of the data collection, and (iii) at the third site, the operations were to be satellited on another installation at the time of the data collection.

2/ Funded by TAG for all BASOPS installations through FY 78.

16 JUL 1976

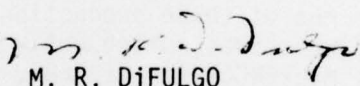
IGAA-ECD (PAO)

SUBJECT: Review of Methodology Used and Results of Cost/Benefit Analyses
at BASOPS Installations to be Operated in the Computer Output
Microform Mode
Audit Report: EC 76-516

b. The COMPACS Group designed an automated system for the CBA and the system was used by the USA Management Systems Support Agency to produce the CBA's in an automated format. The CBA's depicted a comparison of the cost of producing reports on ADP paper with the cost of producing the same reports on microfiche under a service bureau or in an in-house operation. Cost of viewing, printing, and production equipment was included, as was the cost of producing silver-halide microfiche masters, duplicates, and supplies. The CBA's were prepared based on data provided COMPACS as of 2 June 1976. Based on our reviews, we concluded that the computations shown on the CBA's were reasonably accurate and sufficient to support the necessary economic decisions.

4. The results of our review were discussed with responsible COMPACS Study Group personnel on 14 July 1976.

5. The courtesies and cooperation extended to the auditors during the review are appreciated.


M. R. DiFULGO
District Manager

ANNEX Q, BASOPS-COM Specifications

Page

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Equipment Specifications

Supplement 1 - SPOOLCOM Interface Utility Specifications

The text of this Annex will be published after the information has been officially released by the General Services Administration (GSA).

ANNEX R, BASOPS-COM Extension Schedule

	<u>Page</u>
Ltr, DAAG-AMZ-C, Subject: BASOPS-COM Extension Schedule, dated 8 Mar 76.	R-2
Inclosure 1 - Extension Schedule (Updated - as of 26 July 1976)	R-3



DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL AND THE ADJUTANT GENERAL CENTER
WASHINGTON, D.C. 20314

8 MAR 1976

DAAG-AMZ-C

SUBJECT: BASOPS-COM Extension Schedule

SEE DISTRIBUTION

1. In conjunction with the preparation of the Computer Output Microforms Program and Concepts Study (COMPACS) final report, the Group has developed a proposed schedule for the extension of BASOPS-COM, which is attached as inclosure 1.
2. The proposed schedule envisions the "formal extension" of BASOPS-COM to the four prototype test sites in January 1977 and to those Interim-COM sites that are operational in the COM mode during February 1977. With respect to the remaining BASOPS installations, the schedule envisions that one in-house site and two service bureau sites would be brought-up per month starting in March 1977. It is recognized that as additional sites become operational through the Interim-COM procedures, an adjustment to the service contract portion of the schedule would have to be made to accommodate such sites.
3. Request you review the attached proposed BASOPS-COM extension schedule, and provide your concurrence and/or comments concerning it prior to 19 March 1976.

FOR THE ADJUTANT GENERAL:

Incl
as

Charles T. Search
CHARLES T. SEARCH
Colonel, GS
Project Manager, BASOPS-COM

DISTRIBUTION:

USAFORSCOM, ATTN: AFAG-ASR USACC, ATTN: CC-IS USAMDW, ATTN: ANMIS
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HQDA (DAPC-PSF)



BASOPS-COM EXTENSION SCHEDULE.

<u>IN-HOUSE</u>	<u>SERVICE CONTRACT</u>	<u>EXTENSION DATE</u>
A. <u>COMPACS Test Sites:</u>		
FT CARSON, HUACHUCA	FT LEWIS, SAM HOUSTON	APR 77
B. <u>Interim COM Sites:</u>		
	FT MCCOY, MCPHERSON, MEADE, RICHARDSON, SHAFTER	MAY 77
C. <u>Remaining BASOPS Sites (FY 77):</u>		
*FT BRAGG	FT KNOX, USAMDW	JUN 77
*FT STEWART	FT BELVOIR, PRESIDIO OF SF	JUL 77
FT BENNING	FT BLISS, LEE	AUG 77
FT HOOD	FT EUSTIS, SHERIDAN	SEP 77
D. <u>Remaining BASOPS Sites (FY 78):</u>		
FT SILL	FT JACKSON, LEAVENWORTH	OCT 77
FT CAMPBELL	FT BEN HARRISON, INDIANTOWN GAP	NOV 77
FT RITCHIE	FT DETRICK, FITZSIMONS AMC	DEC 77
FT LEONARD WOOD	FT DEVENS, WALTER REED AMC	JAN 78
FT RILEY	31st ADA (Homestead AFB)	FEB 78
FT GORDON, ORD		MAR 78
FT DIX, RUCKER		APR 78
FT MCCLELLAN, POLK		MAY 78
FT CLAYTON		JUN 78

*In-House, interim-COM sites.

ANNEX S, Time-Phased Implementation Plans

	<u>Page</u>
Ltr, DAAG-AMZ-C, Subject: Time-Phased Plans for Implementation of BASOPS-COM, dated 25 Feb 76	S-2
Inclosure 1 - (In-House COM)	S-3
Inclosure 2 - (Service Contract COM)	S-4



DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL AND THE ADJUTANT GENERAL CENTER
WASHINGTON, D.C. 20314

DAAG-AMZ-C

25 February 1976

SUBJECT: Time-Phased Plans for Implementation of BASOPS-COM

SEE DISTRIBUTION

1. As a part of the action associated with the development of the Computer Output Microforms Program and Concept Study (COMPACS) final report, the Group has identified a series of tasks that must be completed prior to the actual extension of BASOPS-COM to installations other than prototype test sites and those approved for interim COM.
2. Accordingly, COMPACS has identified those tasks and the responsible agency/command/office considered most appropriate to complete the task as well as estimated dates by which the task should be completed. The proposed "Time-Phased Implementation Plans" for sites anticipated to be designated as in-house sites and those to be contract supported are attached as Inclosures 1 and 2, respectively. For your information, COMPACS has identified fifteen (15) BASOPS installations which are tentatively programmed to have an in-house COM capability and twenty-seven (27) to be supported by a service bureau.
3. Request you review the attached proposed in-house and service bureau "Time-Phased Implementation Plans" and provide your concurrence and/or comments on their content prior to 8 March 1976.

FOR THE ADJUTANT GENERAL:

Charles T. Search

CHARLES T. SEARCH
Colonel, GS
Project Manager, BASOPS-COM

2 Incl
as

DISTRIBUTION:

HQDA (DACS-DIF)
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COMMANDERS

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USAMDW, ATTN: ANMIS



TIME-PHASED PLAN FOR IMPLEMENTATION

(IN-HOUSE COM)

<u>TASK</u>	<u>RESPONSIBILITY</u>	<u>DATE (ECD)</u>
Implementation Task Force established	Installation POC	C-90
Initial Briefings (Orientation, Intro to Micrographics, etc.)	DA Team*/MACOM	C-80
Site Inspection/Preparation Team established	Installation POC, DA Team, Vendor	C-80
Site Preparation Complete	Installation POC	C-45
COM Hardware Installed	Installation MISO & POC, Vendor	C-30
COM Operator/Production Training	Vendor	C-25
COM Software Installed/Training	CSC, Installation MISO, Vendor	C-25
User Training in functional changes associated with COM (Incl supv tng)	Installation POC, PA	C-25
Reports selected for COM (Other than recommended)	Functional User, Installation MISO	C-15
User Equipment (readers, reader-printers) delivered and installed	Installation POC and Vendor	C-12
User Training on User Equipment	Installation POC and Vendor	C-10
Production Test/Acceptance	Installation MISO and Vendor, TAGCEN	C-10
Begin Operation	Installation POC and MISO	C
After-action follow-up inspection	DA Team/MACOM (optional)	C+28

*Team to consist of TAGCEN personnel with proponent agency (PA) and interested command representatives as required. TDY funding to be borne by parent agency/organization.

TIME-PHASED PLAN FOR IMPLEMENTATION

(SERVICE CONTRACT COM)

<u>TASK</u>	<u>RESPONSIBILITY</u>	<u>DATE (ECD)</u>
Implementation Task Force established	Installation POC	C-45
Initial Briefings (Orientation, Intro to Micrographics, etc.)	DA Team*/MACOM	C-40
COM Software Installed/Training	CSC, Installation MISO, Vendor	C-20
User Training in functional changes associated with COM (Incl supv tng)	Installation POC, PA	C-20
Reports selected for COM (Other than recommended)	Functional User, Installation MISO	C-15
User Equipment (readers, reader-printers) delivered and installed	Installation POC and Vendor	C-15
User Training on User Equipment	Installation POC and Vendor	C-10
Production Test/Acceptance	Installation MISO and Vendor, TAGCEN	C-5
Begin Operation	Installation POC and MISO	C
After-action follow-up inspection	DA Team/MACOM (optional)	C+30

*Team to consist of TAGCEN personnel with proponent agency (PA) and interested command representatives as required. TDY funding to be borne by parent agency/organization.

ANNEX T, BASOPS-COM Extension Funding

	<u>Page</u>
Extension Funding, FY 77	T-2
Extension Funding, FY 78	T-3

BASOPS-COM EXTENSION FUNDING - FY 77
(in thousands)

<u>Schedule</u>	<u>TDY</u>	<u>Contractual</u>	<u>Supplies</u>	<u>Equipment</u>	<u>Total</u>
(Oct) - APR 77 Test Sites	\$ 6	\$ 120	\$ 26.4	—	\$ 152.4
MAY 77 Interim Sites (5)	11	170	28.9	\$ 165	374.9
JUN 77	15	198	33.7	288	534.7
JUL 77	19	219	37.3	411	686.3
AUG 77	23	233	39.7	546	841.7
SEP 77	27	240	40.9	681	<u>988.9</u>
FY78 Equipment to be purchased in FY 77				+945	\$1933.9

T-2

Note: All figures are cumulative.

BASOPS-COM EXTENSION FUNDING - FY 78
(in thousands)

<u>Schedule</u>	<u>TDY</u>	<u>Contractual</u>	<u>Supplies</u>	<u>Equipment</u>	<u>Total</u>
Carry-over FY 77 (6 in-house, 15 contract)		\$ 576	\$ 90.0		\$ 666.0
OCT 77	\$ 4	660	104.4	\$ 135	903.4
NOV 77	8	737	117.6	270	1132.6
DEC 77	12	807	129.6	405	1353.6
JAN 78	16	870	140.4	540	1566.4
FEB 78	19	910	149.2	630	1708.2
MAR 78	23	952	163.2	720	1858.2
APR 78	27	988	175.2	810	2000.2
MAY 78	31	1018	185.2	900	2134.2
JUN 78	33	1030	189.2	945	2197.2
Equipment to be purchased in FY77				-945	1252.2
Additional reader requirement				+380	\$1632.2

Note: All figures are cumulative.